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ABSTRACT

This document presents the initial set of research findings for social studies that is part of Project BETTER, a project of the Maryland State Department of Education to promote more effective instruction. The project has three major objectives: (1) to identify current research on effective instruction; (2) to synthesize this research in the form of non-theoretical summaries; and (3) to deliver this information directly to practitioners. The information in this publication and in the accompanying data base is designed as a resource to assist teachers in expanding and refining their repertoire of teaching strategies and to guide instructional planning and decision making. This resource provides a guide to teachers as they consider their curriculum objectives, the nature and needs of their students, their personal style of teaching, and their available instructional resources. The first section, covering general areas, discusses setting goals for students, homework, debriefing, advance organizers, computer use in social studies, teaching for problem solving, classroom climate, geography, multicultural education, teaching history, teaching law related education, and teaching economics. The second section of the document includes five topics relating to a learning continuum: (1) imagery strategies for early learning years; (2) map skills for early learning years; (3) vocabulary development for middle learning years; (4) human relations and the middle school social studies curriculum; (5) teacher enthusiasm in upper grades; and (6) discussion of controversial issues and moral dilemmas. The third part discusses special populations of students. The fourth part is devoted to thinking skills. (DK)

BETTER

SOCIAL STUDIES

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INTRODUCTION

Teachers are professionals and, as such, should engage in deliberate behaviors based on a rationale and monitored to their intended effects.

from The Instructional Framework Task Force Report (January, 1988)

The Division of Instruction initiated Project BETTER as part of its mission to promote more effective instruction. Project BETTER – Building Effective Teaching Through Educational Research – was guided by three major objectives: 1) to identify current research on effective instruction, 2) to synthesize this research in the form of non-theoretical summaries, and 3) to deliver this information directly to practitioners. Staff specialists in the Division of Instruction, working with consultants, conducted comprehensive literature reviews and compiled syntheses in their respective program areas.

This publication presents the initial set of research findings for social studies. In addition to publications, the information obtained through Project BETTER is being incorporated into an electronic data base as part of the Division's Instructional Framework. The electronic format will allow a correlation between this research and other variables related to effective instruction, such as the characteristics of learners. The electronic data base is well suited to the expanding field of educational research, since emerging knowledge may be easily added and readily disseminated.

The information in this publication and in the data base is designed as a resource to assist teachers in expanding and refining their repertoire of teaching strategies and to guide instructional planning and decision-making. It is not intended to prescribe a particular style of teaching or one "best" method. This resource provides a guide to teachers as they consider their curriculum objectives, the nature and needs of their students, their personal style of teaching, and their available instructional resources. The application of this knowledge will result in more effective teaching and more powerful learning.

Knowledge is power.

❖ SETTING GOALS FOR STUDENTS

FINDING:

Teachers who reveal objectives and/or present questions to be answered promote learning because clear knowledge of expectations focuses students' attention, leads to task-appropriate activity, and facilitates recall and comprehension.

RATIONALE:

Research studies on learning have demonstrated that student awareness of the demands of tasks to be performed critically affects their performance. The more explicit the information about the processes to be followed and the expected outcomes, the better students perform. Conversely, the more vague the information, the worse students perform. A series of effective teaching studies has revealed that successful teachers consistently begin their lessons by clearly stating goals and objectives.

One way to set clear goals is to reveal to students at the outset the objectives of the instruction. Doing so appears to facilitate learning regardless of the grade level, type of student, or subject area. While the statement of the objectives may vary according to purposes and content, the more specifically the objective states the desired outcomes and the criteria for demonstrating attainment, the more useful it is to students in directing their learning activity. Revealing objectives when initiating a period of instruction extending over a block of time and characterized by a dominant theme or structure is especially

useful. Revealing a limited number of explicit objectives rather than a large list of different objectives is also more effective.

Another way to set clear goals is to provide students with a set of questions to be answered during the instruction. Questions are especially useful to focus attention and to facilitate the learning of specific information. However, questions may focus attention so powerfully that students will ignore any information irrelevant to the questions. For this reason, combining questions with objectives, which tend to have a more generalizing effect, is helpful.

Both revealed objectives and pre-questions are effective ways for providing students with an overall learning set for embarking on a new task. As a result students are more likely to attempt the work, persist at it, and manage it successfully. Providing students with this type of clear, delineating, and focusing direction is especially important in the social studies where content and materials are sometimes broad, diffuse, abstract, or weakly organized.

Every experienced teacher . . . knows that the way material is introduced has a great deal to do with student motivations and learning. Carefully designed introductory activities can do a great deal to bridge the gap between what is known and what the student needs to know.

J. Hartley and I. K. Davies

REFERENCES:

Brophy, J.E. and Good, T.L. (1986). Teacher Behavior and Student Achievement. In M.C. Wittrock, (Ed.), Handbook of Research on Teaching (pp. 328-375). New York: Macmillan Publishing Company.

Brophy and Good summarize promising practices from teacher effectiveness studies. The authors emphasize such structuring devices as objectives and questions.

Faw, H.W. and Walter, T.G. (1976). Mathamagenic Behaviors and Efficiency in Learning from Prose Materials: Review, Critique and Recommendations. Review of Educational Research, 46, 691-720.

Faw and Walter, in their major review of multiple studies on the effects of various techniques for structuring and focusing learning, concluded that both stated objectives and pre-questions were facilitating factors. The authors deal with four techniques: advance organizers, active response modes, statement of objectives, and inserted questions.

Hartley, J. and Davies, I.K. (1976). Preinstructional Strategies: The Role of Pretests, Behavioral Objectives, Overviews and Advance Organizers. Review of Educational Research, 46, 239-265.

Hartley and Davies present a review of nearly one hundred studies from industrial training, film research, attitude change, and prose learning situations. The authors conclude that both pretests and behavioral objectives were facilitating factors for learning.

Wong, B., Wong, R. and LeMore, L. (1982). The Effects of Knowledge of Criterion Task on Comprehension and Recall in Normally Achieving and Learning Disabled Children. The Journal of Educational Research, 76 (2), 119-126.

Wong, et. al.'s experiment demonstrates that both normally achieving and learning disabled students answered more comprehension questions correctly and recalled more information when given explicit knowledge of task expectations and criteria for measuring their accomplishment.

HOMEWORK

FINDING:

Teachers who extend academic learning time for students through regularly assigned homework that is graded and/or commented upon improve learning because homework generally benefits student achievement and attitudes.

RATIONALE:

Homework has been called a folkway of American education. Though a perennial practice, there has always been disagreement about its merits and demerits. Presently, homework is receiving renewed interest.

This interest in the efficacy of homework has resulted from three kinds of studies. Research pointing to the importance of "time-on-task" in increasing achievement inevitably has called attention to homework as a way of extending students' engagement with academic learning tasks begun in school. Cross-cultural achievement studies that have repeatedly found American students lagging behind their peers in Japan and most European countries, have noted that the time students spend in home study in those countries is considerably greater than in the United States. Quantitative studies that have attempted to weigh the relative effects of an array of variables on school productivity have found the amount of home study, or homework, to be one of the most significant factors related to achievement. Specifically, one such study found that increased amounts of homework had a greater positive effect on improved scores in

reading and social studies tests than in tests of any other subjects.

Advocates of homework also claim that regularly assigned and monitored homework benefits students' attitudes. These advocates argue that homework builds independent study skills, fosters initiative, cultivates self-discipline, develops responsibility, and demonstrates the benefits of long-term gain over immediate gratification.

Research on homework suggests that homework is most effective when:

- Its purpose is clear to the students, and they perceive it as integral to the ongoing program of study.
- It is regularly assigned, clearly explained, and initially begun in a teacher-assisted classroom setting.
- It is adapted to students' ability levels and to their levels of skill in independent study.

- It is collected, graded and/or commented upon and returned promptly with feedback.

Surveys of current practice reveal that homework assignments most often are some type of follow-up to daily classwork, and that these assignments are most often sedentary, solitary tasks. Homework assignments also can be preparation for profiting from subsequent instruction,

can provide application or extension of concepts and skills to new circumstances, or can allow for creative, personalized summarization and commentary on material learned.

Homework should provide students with opportunities to practice for mastery and with occasions to prepare for subsequent instruction. Assignments must be meaningful, creative, and personalized for student learners.

Why is homework generally effective? If one thing is now generally recognized about effective schooling, it is that "time-on-task" predicts how much is learned. Time is by no means the only ingredient of learning, but without it, little can be learned . . . Homework, of course, extends the school day.

H. J. Walberg, R. A. Paschal, and T. Weinstein

REFERENCES:

Coulter, F. (1980). Secondary School Homework. Cooperative Research Study Report No. 7. Perth Western Australia: University of West Australia.

Coulter presents a survey of homework practices and the response to them from 135 students in three schools of divergent socio-economic status. The author investigates how teachers introduce and structure homework, how pupils respond to their expectations, and under what conditions they acquiesce.

Walberg, H.J. (1984). Improving the Productivity of America's Schools. Educational Leadership, 41 (8), 19-27.

Walberg summarizes the methodology and conclusions of the school productivity studies carried out at the University of Chicago. The author notes the significant correlation of homework to achievement revealed in these studies.

Walberg, H.J., Paschal, R.A. and Weinstein, T. (1985). Homework's Powerful Effects on Learning. Educational Leadership, 42 (7), 76-79.

Walberg, Paschal, and Weinstein have compiled a summary of the three types of studies that have pointed to increased amounts of homework as an approach to higher student achievement. The authors also discuss homework in the context of current social realities in the U.S.

DEBRIEFING

FINDING:

Teachers who conclude units of instruction with a period of debriefing promote learning because debriefing enhances and monitors students' comprehension.

RATIONALE:

Most guidelines for playing simulation games suggest a period of debriefing at the conclusion of play. It is then that students review, organize, analyze, clarify, evaluate, and interpret what went on during the game. Personal meaning is created, and other questions are generated for future thought. Also, the teacher has the opportunity to supplement, correct, or elaborate on the students' perceptions. Students and teacher alike profit from the dialogue that is central to a period of debriefing. Research suggests that a similar debriefing period at the culmination of any unit of instruction may be an important use of instructional time.

Debriefing is significant in the learning sequence because it can enhance comprehension in several ways. First, learning studies indicate that the encoding of information in memory comes about because of active processing and elaborating of material to be learned toward the end of the process. It is then that new material is integrated in meaningful ways with information already stored. Second, studies indicate that learning processes leading to deeper understanding are enhanced by, and may even depend upon, dialogue and interaction with other persons. Third, research indicates that review affects the level of mastery and comprehension. A period of debriefing brings about each of these conditions.

Debriefing is significant because it allows for a check on the level and accuracy of students' comprehension of the unit just studied. Research has demonstrated that individuals monitor their own learning poorly, even when they are capable of doing so. Research has also shown that active participation in checking other people's work improves learning; hence the value of feedback that students receive from dialogue during the debriefing period.

Imaginative teachers already engage students in a variety of activities appropriate for debriefing, such as asking students to share entries in a learning log kept during the unit of study; to assume the role of a person acting or acted upon during the episode studied; to tell ways that events studied remind them of other circumstances; to depict key themes or concepts of the unit pictorially or graphically; to transpose the story line of a unit into a fictional account; or to rank order events, persons, or concepts in the order of importance as students see them. Therefore, it would not be surprising if these teachers see debriefing as a proven practice with a new title. They may receive both encouragement and satisfaction from the enhanced authority bestowed on their practices by current cognitive theory and research.

In schools, debriefing is a process of helping students reflect on their learning experience, attach personal meanings to them, and deepen their understandings These activities enable students to share what they learned through an experience, to summarize what the experience meant to them, and to provide the teacher with the opportunity to review what students did not understand very well.

James Roth

REFERENCES:

Markman, E.M. (1979). Realizing What You Don't Understand: Elementary School Children's Awareness of Inconsistencies. Child Development, 50, 643-655.

Markman's study investigates children's awareness of their own comprehension failure when presented with inconsistent information. The author concludes that children do not spontaneously monitor their understanding even when capable of doing so.

Roth, J. (1987). Enhancing Understanding Through Debriefing. Educational Leadership, 45, 24-27.

Roth explains the concept of debriefing and elaborates on its use in social studies instruction. The author includes an explanation of the process involved, a rationale for its usage, and an evaluation of the merits of debriefing as practiced in the social studies classroom.

Schallert, D.L. and Kleiman, G.M. (1979). Some Reasons Why Teachers Are Easier to Understand Than Textbooks. Reading Education Report No. 9. Urbana: University of Illinois, Center for Study of Reading.

Schallert and Kleiman analyzed four reading selections along with taped lessons of ten teachers utilizing these same passages to determine why children find textbooks to be much more difficult to understand than teachers' presentations. Analysis demonstrated the value of dialogue and interaction, and the significance of personalizing meaning.

Yager, S., Johnson, E.W. and Johnson, R.T. (1985). Oral Discussion, Group to Individual Transfer, and Achievement in Cooperative Learning Groups. Journal of Educational Psychology, 77, 60-66.

Yager, et. al. evaluate the effects of oral discussion structured in varied formats on achievement and retention. The authors conclude that both oral presentations and monitoring of others' contributions contribute to the efficacy of cooperative learning.

ADVANCE ORGANIZERS

FINDING:

Teachers who use advance organizers to introduce new materials to students promote learning because advance organizers help students to better arrange, integrate, and retain materials to be learned.

RATIONALE:

Students in social studies classes are confronted with a great deal of unfamiliar material both orally and in print. Teachers can help students make sense out of this material if they take time at the outset of instruction to highlight the organizational and structural patterns of the new material and indicate how it relates to other material already learned. One means of rendering such assistance is the utilization of advance organizers. Advance organizers are short sets of verbal or visual information presented prior to learning a larger body of content.

The intent of advance organizers is to present students with context—not content, and with conceptual frameworks—not specific detail. Teachers can provide students with new organizational structures to guide the assimilation of new content. For example, before students read about the French Revolution, the teacher might take time to present the conceptual scheme of the phases of a revolutionary movement.

Advance organizers also have been described as bridges from students' previous knowledge to whatever is to be learned. Advance organizers can call forth general patterns and relationships already in mind that students may not necessarily think to use again in assimilating new material. For example, before teaching the struc-

ture of state government, the teacher might have students recall the structure of the federal government with which they are already familiar and point out how the new structure to be learned will be alike or different from the structure already learned.

An advance organizer is always specific to the content and to the learners with which it is to be used. Generally speaking, advance organizers may be presented as written text, may take a graphic form, may utilize audiovisual supports, or may be presented orally. Research studies have shown all to be effective. While studies have shown advance organizers to be effective with all grade and ability levels, lower ability students tend to profit the most. This is not surprising, for these students may be in the greatest need of organizational cues and may be the least able to generate such cues on their own. Finally, the studies indicate that the effectiveness of advance organizers is proportional to the level of unfamiliarity, difficulty, and technicality of the material to be learned. This provides teachers with a rule of thumb to follow in deciding when to invest the planning time needed to develop a good advance organizer to introduce a body of new information.

Advance organizers are especially effective for helping students learn the key concepts or principles of a subject area and the detailed facts and bits of information within these concept areas. The advance organizer is a highly effective instructional strategy for all subject areas where the objective is meaningful assimilation of those concepts, principles and facts.

M. Weil and J. Murphy

REFERENCES:

Luiten, J., Amès, W., and Ackerson, G. (1980). A Meta-analysis of the Effects of Advance Organizers on Learning and Retention. American Educational Research Journal, 17, 211-218.

Luiten and Ackerson examine 135 studies of the effects of advance organizers on learning and retention. The authors also examine possible influencing variables such as subject area, grade level, subject ability level, and mode of presentation, and they show advance organizers to have a significant facilitative effect on both learning and retention.

Stone, C.L. (1983). A Meta-Analysis of Advance Organizer Studies. Journal of Experimental Education, 54, 194-199.

Stone examines twenty-nine reports yielding 112 studies then analyzed them using Glass' Meta-analysis technique. The author shows that advance organizers were associated with increased learning and retention of material.

Weil, M.L. and Murphy, J. (1982). Instructional Processes. In H. E. Mitzel, (Ed.), Encyclopedia of Educational Research. NY: The Free Press, 892-893.

Weil and Murphy present a summary of research findings regarding the effectiveness of advance organizers. The authors' survey indicates that advance organizers provide highly effective instructional strategies for all subject areas. Organizers assist students to learn both key concepts and detailed facts.

❖ COMPUTER USE IN SOCIAL STUDIES

FINDING:

Teachers who teach social studies at any grade level, through the use of computer applications, particularly databases, promote learning because computer technology provides students with the means to reinforce factual knowledge, to learn cooperatively and to process information more effectively and efficiently.

RATIONALE:

The use of computers in social studies education has increased significantly over the last five years, although the level of use lags behind computer utilization in other subject areas. A recent study indicates computer usage for social studies varies from one to four percent; the highest utilization is in grades 4-8.

Computer software tutorials and drills can be used both to deliver and to reinforce factual knowledge. The one-on-one aspect of this process can have positive effects resulting from individualized instruction. However, available tutorial software is generally designed as individual programs and lacks established correlations with the total curriculum. Computer-based simulations provide students with an opportunity to become immersed in an historical setting, make decisions, and deal with consequences. Computer databases allow students to utilize already-compiled information, to find patterns in data, to explore and analyze problems, and to build their own collections of data. Some programs provide item analysis and graphing tools that further assist students to manipulate data and to synthesize data graphically.

Research literature concerned with the effects of computer utilization on teaching and learning in social studies is extremely limited and generally lacks empirical evidence. Existing research indicates that, of the existing social studies classroom computer applications, educators believe the use of databases as an inquiry tool has the greatest potential. The positive effects of database use relate to information processing, data classification, and question asking. Databases can be powerful tools, enabling students to solve problems more knowledgeably and efficiently. The information a student secures from a database can promote the use of the higher order thinking skills of analysis, synthesis, and evaluation. The student is thus involved directly in the learning process and reliant upon his own study.

Present research indicates that other computer applications are not as effective as the use of databases in attaining student cognitive outcomes, but writers agree that further research is necessary to adequately assess the effectiveness of instruction using computer applications.

Writers also agree that the trend toward greater

integration of software into the social studies curriculum will continue. The further development of interactive video technology will allow social studies teachers to lead students on video field trips. Greatly expanded databases will permit students to access electronically-placed in-

formation and explore complex networks of knowledge. Research confirms the critical centrality of the trained, informed teacher capable of discerning the possibilities of computer utilization in the classrooms.

Computer software has become another tool for social studies teachers to use within their curricula. It is still the teacher that has the responsibility to choose materials that reach students and give them substantive learning opportunities.

Ray Medeiros

REFERENCES:

Budin, H., Taylor, R., and Kendall, D. (1987). Computers and Social Studies: Trends and Directions. The Social Studies, 78: 7-12.

Budin et. al. discuss possible and desirable future directions for computer use in the social studies by addressing four topics: types of software and trends in software development; the match between goals and purposes of social studies and software; the educational and technological limitations of current software; and the most promising avenues of software development. The authors admit to the dominant use of software for drill and practice, but they propose the use of databases as a means to involve students actively in learning as a basis for problem-solving. Database management also provides students with opportunities to expand their global understanding specifically, and their social learning generally, through student involvement and application of data.

Ehman, L. and Glenn, A. (1987). Computer-Based Education in the Social Studies. Bloomington, IN: Social Studies Development Center and ERIC Clearinghouse for Social Studies/Social Science Education. (ERIC Document Reproduction Service No. ED 284 825)

Ehman and Glenn provide extensive discussion regarding issues related to the topic of computer use in social studies education. Their monograph contains four chapters, notes, and bibliography; the content is research-based, and the format is well-structured and logical. The authors present a variety of viewpoints, reporting extensively on case studies regarding the impact of computer use on teacher activities, on student learning, and on curriculum. The teacher who is considering the use of the computer within the social studies classroom will find answers to key questions and promising practices that will assist in the effective use of technology. The authors conclude with an acknowledgement that as change occurs in the information age, the role of the social studies teacher will continue to evolve.

Kendall, D. and Budin, H. (1987). Computers in Social Studies. Social Education, 51, 1:32-36.

Kendall and Budin survey the practical ways computers are currently used in classrooms and assess the ways in which computers can assist teachers. This is an introduction to seven articles that focus on the use of computer technology in the social studies classroom. Articles by Beverly Hunter and Charles White about computer uses, an article about student-designed computer simulations, and a compilation of teacher resources make this edition especially valuable.

Medeiros, R. (1990). Social Studies: Simulations, Data Bases, And More for Class Teaching. Electronic Learning, 9, 40-41.

Medeiros provides descriptions of fourteen software programs available to teachers who wish to integrate the use of computers in the social studies classroom. In addition to providing specific information regarding each program, the author points out additional learning strategies that could be incorporated to teach basic skills. Medeiros stresses teachers' responsibility to choose software materials that provide integrated learning opportunities.

❖ TEACHING FOR PROBLEM-SOLVING

FINDING:

Teachers who assist students engaged in a problem-solving activity by explicitly teaching them knowledge and skills relevant to the activity promote learning because students' problem-solving abilities can be improved through direct instruction.

RATIONALE:

Problem-solving is an instructional strategy that has been used in social studies classrooms for a long time. One reason is that the efficacy of problem-solving as a way to learn has been established. Another, and perhaps more important reason, is that problem-solving is compatible with frequently stated goals of social studies education. These include the preparation of students to function as participating citizens, as flexible adults capable of coping with rapid social change, and as independent learners.

In applying problem-solving strategies in social studies classrooms, teachers frequently have assumed a less directive role than during other types of instruction. They have facilitated but not directly taught; they have relied heavily on student interaction and the task itself to bring students to discover effective processes for problem-solving. Some have followed instructional models that encourage a non-directive approach. Some have assumed that such an approach is inherent in the problem-solving strategy. All too frequently the results have been disappointing, and the value of problem-solving as an effective strategy has been called into question.

Current cognitive research has revealed that

novice problem-solvers are inefficient, but that problem-solving skills are very amenable to training. With this in mind, a limited number of classroom-based experiments have sought to answer the question of whether the problem-solving performance of social studies students can be improved through training. In each instance, a program of instruction in which the teacher assumed a directive role and engaged in direct teaching proved more effective in improving the problem-solving performance of students than a program in which the teacher assumed a supportive role and merely guided "discovery."

What teacher behaviors appear to facilitate students' problem-solving performance? Since research has demonstrated that problem-solving is very context-specific, teachers should:

- identify and make accessible to students the background knowledge required to think meaningfully about the problem;
- present students with functional problem-solving models, explaining why each is appropriate to specific tasks;

- monitor the students' understanding of the interrelationships of the steps in the model; and
- identify skills needed for a problem-solving task and explicitly teach students how to perform these operations. Such instruction should include application of the skill to uncomplicated cases in preparation for applying the skill to the problem-

solving task that is the focus of learning.

Evidence suggests that direct instruction can improve the problem-solving performance of students across both age and ability levels. Evidence also suggests that with appropriate teacher direction and involvement, problem-solving can both engage students' interest and stimulate them to pursue higher levels of intellectual endeavor.

The explicit instruction program was a much more powerful influence upon performance than the treatment which primarily relied upon interaction between students and the experience of doing the tasks.

Graham Whitehead

REFERENCES:

Cornbleth, C. (1985). Critical Thinking and Cognitive Process. In W.B. Stanley, (Ed.), Review of Research in Social Studies Education: 1976-1983. Bulletin No. 75, Washington, D.C.: National Council for the Social Studies, 11-63.

Cornbleth presents a summary of cognitive theory and research on problem-solving. The author suggests that since prior beliefs and values, as well as empirical and conceptual knowledge, affect the solution of social problems, problem-solving may be a misnomer in the context of the social sciences. Thus, the process of resolving problems may be the result of reasoning, rather than a structured analysis and application of ideas. Excellent references follow the article.

Crabbe, A. (1989). The Future Problem-Solving Program. Educational Leadership, 47, 27-29.

Crabbe reports on the origin, process, and program components of the worldwide Future Problem-Solving Program. The author cites example practice problems and methods of solution. In addition to learning a problem-solving model applicable to real-life future problems, students learn that they can exert a considerable degree of control over decisions affecting their future.

Curtis, C.K. and Shaver, J.P. (1980). Slow Learners and The Study of Contemporary Problems. Social Education, 44, 302-309.

Curtis and Shaver describe a study in which the problem-solving performance of slow learning high school students was enhanced by direct instruction in skills as compared to a control group that showed no similar improvement. These authors emphasize the importance of problem-solving skills as fundamental to students' understanding of current issues.

Glenn, A.D. and Ellis, A.F. (1982). Direct and Indirect Methods of Teaching Problem-Solving to Elementary School Children. Social Education, 46, 134-136.

Glenn and Ellis have written a report of a controlled experiment which demonstrated the superiority of the direct instruction method over the so-called guided discovery approach in teaching students a problem-solving strategy. The authors note that the process of problem-solving is a complex operation involving a number of factors and interactive steps, and that the direct method of instruction works effectively with both stimulus-bound and stimulus-free thinkers.

CLASSROOM CLIMATE

FINDING:

Teachers who teach their students in a democratic, open climate promote learning because a democratic, open classroom climate correlates significantly with the development of positive civic attitudes.

RATIONALE:

A fundamental objective of social studies education is the development of positive civic attitudes appropriate in a democracy. The debate over how to achieve this objective is a recurrent theme in pedagogical literature. Classroom climate is one of the few conditions of schooling repeatedly linked by research to the accomplishment of this goal.

In a classroom climate that is open and democratic, students are treated fairly and are free to express their opinions during discussion. Such a climate can prevail in classrooms that otherwise are traditional or innovative to varying degrees. The distinguishing and crucial factor is that in open, democratic classrooms students perceive their opinions to be solicited, accepted, and respected. It is in such classrooms that positive, democratic attitudes are nurtured.

In a classroom operated in a fundamentally democratic manner, students develop trust in the

teacher. This trust appears to generalize to students' development of greater trust in other authorities, including political authorities. Also, these students develop a strong belief in the worth of political activity and are more likely to believe they can be politically effective.

Additionally, the effect of open and democratic classroom climate on students' attitudes is observed in classroom and school life immediately and directly. Students in democratic settings exhibit more positive behavior and are less likely to engage in disruptive behavior or violence. They appear more connected to the institution and show greater support for school policy.

The evident effect of classroom climate on student attitudes makes a powerful statement about the ability of social studies teachers to foster civic attitudes relevant to a democracy. It also should suggest serious introspection by teachers about their roles as individuals in the teaching of democratic values.

The weight of the evidence . . . suggests that the classroom climate in social studies classes can be a significant factor in developing positive democratic attitudes.

J. S. Leming

REFERENCES:

Ehman, L. H. (1980). The American School in the Political Socialization Process. Review of Educational Research, 50, 99-119.

Ehman identifies classroom climate as one of the few factors about schooling positively linked with positive political attitudes. This is a landmark study of political socialization in the United States. The author believes that although curriculum is effective in the transmission of knowledge, it does not influence political attitudes. Ehman writes that student participation in social activities, and classroom and school climate, are the main factors related to student political attitudes.

Leming, J. S. (1985). Research on Social Studies Curriculum and Instruction: Interventions and Outcomes in the Socio-Moral Domain. In W.B. Stanley, (Ed.), Review of Research in Social Studies Education: 1976-1983. Bulletin No. 75. Washington, D.C.: National Council for the Social Studies, 123-213.

Leming's review of recent research on non-democratic and open, democratic classroom environments supports the linkage of open, democratic classrooms with positive political attitudes. The author's examination of several curricular interventions and their outcomes in the socio-moral domains includes a review of all of the curricular approaches utilized in the past two decades. This article is a very extensive summarization of recent research.

Torney, J., Oppenheim, R., and Farnan, R. (1975). Civic Education in Ten Countries. New York: John Wiley and Sons.

Torney and Farnan present a cross-national study based on questionnaires administered to more than 30,000 10-year olds, 14-year-olds, and pre-university students in ten countries. This study contains the most definitive data showing that classroom climate affects citizenship outcomes.

Van Sickle, R. L. (1983). Practicing What We Teach: Promoting Democratic Experience in the Classroom. In M.A. Hepburn, (Ed.), Democratic Education in Schools and Classrooms. Bulletin No. 70. Washington, D.C.: National Council for the Social Studies, 49-66.

Van Sickle's essay describes the open, democratic classroom and discusses factors relevant to its maintenance. The author elaborates on thirteen individual recommendations for teachers wishing to develop a more democratic learning environment. Van Sickle's suggestions are specific and practical and include guidelines and structure.

GEOGRAPHY

FINDING:

Social studies teachers who teach students through emphasizing the five fundamental geographic themes promote learning because they provide students with the knowledge of the world needed to make informed decisions about local, national, and international issues.

RATIONALE:

Geography means "writing about or describing the earth." Since the earth is dynamic and its peoples interact continually in new and different ways, the content of geography is constantly changing. Yet within this changing realm, geographic inquiry continues to focus on three key questions: *Where* are phenomena located on the earth's surface? *What* explains the location of these phenomena in particular places? And *what are the consequences* of these locations for humankind? Encompassing more than place names and map and globe skills, geography as an area of social studies seeks to uncover and describe spatial patterns and explain the processes that have created such patterns.

Geography examines, describes, and studies the earth through a structure of five interrelated themes. Each theme encompasses several concepts and asks several questions. Briefly, the themes are location, place, human-environmental interaction, movement, and region. *Location* focuses on establishing the position of phenomena on the earth's surface and explaining the process that has created that location. *Place* describes the physical and human characteristics of a place. What gives the place character? Why is it memorable? *Human-environment inter-*

action addresses how and why humans interact with their environment and the consequences of that interaction. *Movement* focuses on how people and places are interconnected. A *region* is a geographic tool used to examine, define, and analyze the earth by dividing it into areas with common characteristics. Taken together, these themes encompass virtually all geographic concerns.

Geographic education is important at several levels. At the local level, citizens are asked to make decisions on a variety of "quality of life" issues such as the location of a landfill, the impact of a new road, or the consequences of land development. Yet, without knowledge of the human and physical characteristics of the community, no basis exists for enlightened judgment. At the national level, citizens migrate to new areas based on economic, social, and environmental information about those places. Such movement decisions, in turn, affect the relative political and economic power of regions. At the international level, the world is so interconnected that a political or economic change occurring in one place affects us all. Similarly, an environmental catastrophe (drought, deforestation, acid rain, nuclear accident) has repercussions far beyond its immediate area.

In summary, for students to become active and informed citizens of the community, nation, and world, they must have an understanding of that

place. Geography provides the vehicle for this understanding.

To individuals lacking a global "mental map," the world must be little more than a confusing hodgepodge; places without location, quality or context; faceless people and cultures void of detail, character or meaning; and . . . temporal events that occur in a spatial vacuum; and a host of critical global problems for which they have no criteria on which to base analyses, judgments, or attempts at resolution.

— Charles Gritzner

REFERENCES:

Committee on Geographic Education, National Council for Geographic Education (NCGE) and Association of American Geographers (AAG). (1984). Guidelines for Geographic Education: Elementary and Secondary Schools. Washington, D.C. and Macomb, Illinois: AAG and NCGE.

The initial publication describing the Five Fundamental Themes of Geography has become the primary guide for curricular change in geography. The Five Themes have become the recognized structure for geographic inquiry. The volume also contains specific geographic objectives for each grade level.

Hill, A. and McCormick, R. (1989). Geography: A Resource Book for Secondary Schools. Santa Barbara, California: ABC-CLIO.

Although much of this book is devoted to a compendium of resource materials (teacher guides, textbooks, films, computer software, etc.) the introductory chapter, "How Geography Examines the World," provides an overview of the geographic perspective and a well-developed explanation of the Five Fundamental Themes.

Natoli, S. (Ed.). (1988). Strengthening Geography in the Social Studies, Bulletin No. 81. Washington, D.C.: National Council For the Social Studies.

A volume of nine essays that "attempt(s) to demonstrate the power of geographical content—the concepts and skills of geography as they relate to various components of the social studies curriculum." Essays focus on the nature of modern geography, the place of geography in the social studies curriculum, the fundamental skills of geography, the preparation of geography teachers, and an example of the Five Fundamental Themes in practice.

MULTICULTURAL EDUCATION

FINDING:

Social studies teachers who teach about ways different groups of people organize their daily lives promote learning because students develop an acceptance, appreciation, and empathy for the rich cultural, ethnic, racial, and linguistic diversity of American society.

RATIONALE:

One major concern of social studies professionals is educational equity in America's changing society. In order to help assure that social studies educational practice reflects a continuing commitment to educational equity, a multicultural curriculum that incorporates the ideas, literature, contributions, and history of the diverse groups in society should be developed and implemented.

The "melting pot" doctrine, the idea of assimilating all Americans into one homogeneous society, should no longer be perpetuated in the nation's schools. Multiculturalism is, and always has been, the reality. However, public institutions, including schools, have long been dominated by a European centered cultural bias. It is possible for teachers and schools to modify instructional programs to counter this bias so that they are responsive to the cultural needs of all students while maintaining the integrity of the academic curriculum.

Students have a number of advantages in a multicultural classroom. Studies have shown that the more students understand about stereotyping, the less negativism they will exhibit toward other groups. Lessons about the achieve-

ments of various groups can enhance the self-esteem of individuals who identify with these groups. Lessons about civil liberties issues and the constitutional rights of individuals can foster civic tolerance and acceptance of various cultural, ethnic, racial, and linguistic groups.

Effective methods for teaching in a multicultural classroom include:

- using cooperative learning techniques that rely on the premise that people who work toward a common goal encourage one another, help one another, and learn to respect one another;
- discussing differences, which explore why one person or group might find another person or group's behavior more appropriate;
- examining historical incidents from viewpoints that reflect the culture and history of different groups of Americans;

- comparing traditions, events, and institutions that help students learn that members of different groups have common characteristics and needs that may be expressed differently;
- using community resources that may include individuals from various cultural groups, oral and local histories, family records, and field trips to museums, outdoor markets, and festivals;
- providing a variety of readings that may include books of fiction and biography, as well as magazine and

newspaper articles that expose students to values of ethnic diversity, cultural pluralism, and related issues.

By the year 2000, it is estimated that one of every three school-age children in the United States will be non-white. As American society becomes more diverse, students must be provided with opportunities to broaden understandings of their culture and other cultures. In classrooms where children communicate openly and respectfully with and about one another, differences, commonalities, and inter-relatedness can be observed, learned from, enjoyed, and even questioned.

A multicultural, gender-fair, nonparochial curriculum is essential if students are to broaden their understanding of their own cultures and of cultural diversity.

Gerald Pine and Asa Hilliard

REFERENCES:

Casanova, U. (1987). Ethnic and Cultural Differences. In V. Richardson-Koehler (Ed.), Educator's Handbook: A Research Perspective, 370-393. New York: Longman, Inc.

Casanova discusses ethnic and cultural differences as they relate to teachers and classrooms. She reviews studies on culture and intelligence, culture and thought, school culture versus home culture, and non-verbal communication. A section entitled, "Questions Teachers Ask" is comprehensive in scope and practical in treatment.

Cohen, C.B. (1986). Teaching About Ethnic Diversity. Bloomington, IN: Clearinghouse for Social Studies/Social Science Education (ERIC Digest No. 32).

Cohen's article examines: 1) the meaning of education about ethnic diversity in America; 2) the reasons for its importance; 3) the place of ethnic diversity in the curriculum; and 4) procedures for teaching about ethnic diversity in the United States.

Higham, J.(1984). Send These To Me: Immigrants In Urban America. Baltimore, MD: The Johns Hopkins University Press.

Higham advances the theory of "pluralistic integration" to describe his rationale for blending unity with diversity in the education of Americans.

Martin, D.S.(1985). Ethnocentrism Revisited: Another Look At A Persistent Problem. Social Education, 49, 604-609.

Martin examines the place of non-Western cultural studies in elementary social studies programs, identifies possible student and teacher reactions to the various forms that ethnocentrism takes, surveys recent research on ways to reduce classroom ethnocentrism, and identifies implications for teacher training.

Pine G.J. and Hilliard, A.G.(1990). Rx for Racism: Imperatives for America's School. Kappan, 71(8), 593-600.

Pine and Hilliard analyze the issue of equity in American education and offer suggestions for improving education for all children. These include the development and implementation of a multicultural curriculum.



TEACHING HISTORY

FINDING:

Teachers who include the study of history on all grade levels and who teach the content in creative ways promote learning because students will develop a knowledge of the world around them and of themselves as citizens within it.

RATIONALE:

Recent studies indicate that the historical knowledge of young Americans is less than most citizens desire. Although several possible causes for this relative ignorance have been proposed, the absence of historical content in the curricula of most K-3 programs and the submersion within the social sciences of most grade 4-6 programs cannot be ignored.

Curriculum reformers do not suggest that concepts formerly taught in existing social studies curricula for the early grades should be excluded. Such reformers do suggest, however, that history provides an indispensable context for gaining knowledge about such concepts as self, family, community, and world.

In the vanguard of curricular change is the "California Framework" (1988) which emphasizes history at all levels of the elementary school curriculum. Researchers now believe that elementary school students who study history can develop a knowledge of their American heritage. By viewing the past as real, rather than as an abstraction, they can recognize their relationship to the yet-to-be written history.

National curricular trends have consistently included the study of history at the secondary

school level. However, today's classrooms provide exceptional opportunities to incorporate experiences and points of view of diverse student populations while teaching the unity of purpose of the nation. Students must understand that they are heirs to a precious historical legacy with a civic responsibility to contribute to the future of their national and global community.

Research has evidenced that textbook-bound instruction, both on the elementary and secondary school levels, is unsuccessful in developing historical interest and understanding in students. History instruction must be enhanced through the use of audio-visual resource materials, amplified through the use of literature, and enriched by special experiences such as oral history projects, simulations, field trips, and craft projects.

As we approach the 21st century, it is vital that our country have an informed, responsible, and contributing citizenry who, through their study of past events, recognize ways to contribute to society and to solve civic problems. If citizens do not know and have a respect for their history and traditions, they remain strangers in their own land.

I believe that if our children do not even know the inherited principles of a liberal democracy, it is foolish to expect that they should put their faith in those principles.

William Bennett

REFERENCES:

Bennett, W. (1986). History - Key to Political Responsibility. In History, Geography and Citizenship (Ethics and Public Policy Essay 64). Washington, D.C.: Ethics and Public Policy Center.

Bennett emphasizes the vital importance of the study of history as a foundation for an informed citizenry. The author argues for the need for students to know the inherited principles of a liberal democracy and against the decline in the status of history in the schools, characterizing this decline as "very serious". Bennett suggests a three-point program that could provide the historical initiative necessary to prepare students, knowledgeable of their legacy, as citizens of the future.

Gagnon, J. (1987). Democracy's Untold Story. What World History Textbooks Neglect. Washington, D.C.: American Federation of Teachers.

Gagnon, in writing a critical review of five often-adopted textbooks in world history, asks and answers critical questions on the teaching of history. The author addresses such diverse, yet related, questions as what a citizen needs to know, the place of history in the curriculum, and what kind of history should be taught. Margin notes assist the reader in quickly identifying ideas which can be further investigated in the text.

Holt, T. and McNeill, W. (1989). History and World History. In Charting A Course: Social Studies for the 21st Century, 44-59. Washington, D.C.: National Commission on Social Studies in the Schools.

Holt and McNeill propose methodologies for teaching American and world history. Holt emphasizes the inclusive approach stressing the incorporation of diversity in the American experiences. In addition to his discussion of the content and context for teaching history, Holt points to the importance of document study. McNeill proposes that the initial study of major Eurasian civilizations must be followed by an emphasis on the interaction across civilizational boundaries that resulted in the blending of traditions formerly separated. Explaining eight main historical landmarks of this blending process, the author suggests that by studying the intensive interaction of peoples, students will be better prepared for citizenship.

Ravitch, D. (1987). Tot Sociology, Or What Happened to History in the Grade Schools? The American Scholar, 56:343-354.

Ravitch provides historical background and rationale for the development of the elementary school social studies curriculum. The author laments the evolvement of curriculum as a result of social and political values rather than as a result of the findings of cognitive or developmental psychologists. Indicating the absence of history in the early grades, Ravitch believes that the presence of a tot sociology is ill-suited to the needs of young children and recommends the study of history in the early grades as necessary to our nation's cultural literacy.

❖ TEACHING LAW-RELATED EDUCATION

FINDING:

Teachers who incorporate law-related education in the social studies curriculum through stimulating, interactive instruction promote learning because they provide students with opportunities to develop as informed participants in democratic processes.

RATIONALE:

Teaching and learning about law in elementary and secondary schools is a notable trend in social studies education. In a nation-wide curriculum study, respondents indicated that, since 1975, law-related education (LRE) has been added to the curriculum in more than one-half of the forty-six states involved in the study. These same responding educators ranked LRE fourth as a priority in social studies education.

LRE presumes that every citizen has a need to know how our country's legal and political systems function, how laws affect them, and how they can affect laws. As a curriculum, LRE is a set of organized experiences providing students with opportunities to develop knowledge, skills, and attitudes that are necessary for an effective response to the rights and responsibilities of citizenship and to legal issues in society.

LRE is considered a necessary component of a strong social studies curriculum for several reasons. Law-related education develops citizenship in a classroom setting by providing students with knowledge, skills, and attitudes needed for responsive participation in American democracy. Studies show that LRE programs have reduced students' tendencies toward delinquent

behavior. Also, because of interactive methodologies (case studies, mock trials, small group work), students evaluate LRE programs as rewarding and useful.

Finally, LRE facts and concepts are basic to an understanding of other social studies courses in both elementary and secondary schools. Students need to know about basic legal concepts, including sources and functions of law, and legal roles. They need to know legal principles so that they are better able to comprehend the breadth and depth of history, economics, government, and contemporary issues.

Although special events related to the study of law and/or a semester-long course in LRE seem to result in a positive difference in student's knowledge, skills, and attitudes, systematic infusion of LRE throughout elementary and secondary curricula is the preferred approach of most educators. Utilization of resource persons in the classroom, the teaching of critical thinking about all sides of controversies, and strategies that foster student interaction, and cooperative learning combine to make LRE a viable, important trend in the preparation of today's youth for tomorrow's citizenry.

Public education in the United States was conceived primarily to help our nation's citizens participate fully in our democratic society. This commitment is reflected in the mandates of all 50 states which require that elementary and secondary school students receive instruction in the principles of the United State Constitution or our nation's legal and government systems Law-related education was established to revitalize this integral component of school instruction. . . .

—From Final Report of the U.S. Office of Education Study Group on Law-Related Education, 1978.

REFERENCES:

Little, J., and Haley, F. (1982). Implementing Effective Law-Related Education Programs. Boulder, CO: Social Science Education Consortium.

Little and Haley address the question of whether law-related education can prevent delinquency. Reporting on a study conducted by the Social Science Consortium and the Center for Action Research, the authors report that law-related education can have a positive effect on delinquency if the LRE program follows six principles. The authors identify, discuss, and examine implications regarding these principles that are critical in achieving the goal of delinquency prevention.

Parker, W.C. and Kaltsounis, T. (1979). Citizenship and Law-Related Education. In V. Atwood (Ed.). Elementary Social Studies - An Endangered Species, 14-33. Washington, D.C.: National Council for the Social Studies.

Parker and Kaltsounis define the role of citizenship education in elementary education as one that may be more critical than in later grades. Reviewing major studies in four areas of research — political socialization, cognitive development, moral development, and classroom climate — the authors conclude with specific suggestions for the inclusion of a law-related education curriculum in the fifth and sixth grades. This review has numerous references that can assist a teacher investigating the topic of LRE.

Study Group on Law-Related Education. (1978). Final Report of the U.S. Office of Education Study Group on Law-Related Education. Washington, D.C.: U.S. Government Printing Office.

This report is an extensive, comprehensive document compiled by the U.S. Office of Education Study Group on Law-Related Education. The report investigates the scope of law-related education, federal support and leadership in the field, and the reasons for recommendations by the Office of Education for future support. The summaries of individual state programs are particularly helpful; the appendices contain approaches to teacher education and additional studies related to the topic. Throughout the document there is evidence of federal-level commitment to LRE as part of education for citizenship.



TEACHING ECONOMICS

FINDING

Teachers who incorporate economic education in their social studies classes promote learning because the study of economics provides students with opportunities to develop their ability to conduct objective, reasoned analyses of private and public economic issues, thus enabling students to better understand the principles taught in social studies and to be more fully in control of their economic future.

RATIONALE:

Since economics is both a body of knowledge and a way of thinking, it is an extensive, complex discipline that strengthens and reinforces students' understanding of the content of conventional social studies courses. Economic education involves the understanding of concepts and the establishment of relationships as well as the learning of content and the development of reasoning. Economic education is not designed to prepare students to be economists; it is taught so that students may acquire a background in economics that will equip them to make intelligent decisions in both the marketplace and the voting booth.

Most writers believe that the most effective means for accomplishing the goals of economic education is to infuse economics into the K-12 curriculum. Additionally, a separate senior high school course can serve to provide specialized learning for certain students.

Students who develop economic literacy have the ability to conduct objective analyses of eco-

nomic issues. Students grow as informed decision-makers, competent to participate in and contribute to the local, national, and global economies of 21st century communities.

A nationwide network of councils and centers for economic education, affiliated with the Joint Council on Economic Education (JCEE), provides teacher inservice in economic education. A partnership between school systems and the JCEE network of state councils and centers, through the Developmental Economic Education Program (DEEP), plays a major role in the recently expanded commitment to economic education in schools. In the last decade, the JCEE, in collaboration with other professional organizations, has developed numerous major educational products for teachers' use in the classroom. These print, audio-visual, and software products make it possible for teachers and students to inquire into economic issues and topics by using prepared materials that are interesting and relevant.

The impact of economics on the lives of people is pervasive. Economic forces inform decisions that change the course of history, contribute to the development of different forms of government, shape societies and the roles of their members and lead to the discovery of new frontiers.

W. Lee Hansen

REFERENCES:

Armento, B. (1986). Promoting Economic Literacy. In S.P. Wronski and D. Bragaw (Eds.) Social Studies and Social Sciences: A Fifty-Year Perspective, 97-110. Washington, D.C: National Council for the Social Studies.

Armento provides a brief history of the development of economic education and discusses shifting goals and issues. The author observes that problems in economic education today differ only in outer manifestation from those in previous decades and credits the Joint Council on Economic Education for much of the recent innovation and expansion in economic education in the schools.

Gilliard, J.V., Caldwell, J., Dalgaard, B., Highsmith, R., Reinke, R., Watts, M. (1988). Economics: What and When. New York: Joint Council on Economic Education.

Gilliard, et.al's work provides guidelines to assist educators in selecting and sequencing economics in the K-12 curriculum. Designed to assist in the definition and organization of a comprehensive economic education program for elementary and secondary grades, the writers provide a rationale and specific scope and sequence guidelines with content organized both by concepts and grade level. Educators desiring to incorporate economic literacy within the social studies curriculum will find this publication important reading.

Hansen, W. L. (1989). Economics. In Charting A Course: Social Studies for the 21st Century, 37-42. Washington, D.C: National Commission on Social Studies in the Schools.

Hansen's focus, that the impact of economics is pervasive, permeates this article. He clearly states that economic education must be infused into the K-12 curriculum and offered as a separate, supplemental, senior-level course. In this response to the charge of the National Commission on Social Studies Curriculum Task Force, Hansen provides a rationale for the study of economics and discusses the objectives, key concepts, skills, and goals for economic education.



IMAGERY STRATEGIES FOR EARLY LEARNING YEARS

FINDING:

Teachers who teach concepts, rules, and other materials to young children through the use of visual imagery promote learning because visual imagery enhances the recall of key ideas and increases comprehension.

RATIONALE:

Imagine a group of primary grade children reading a passage in a text about autumn. As they read the sentences and discuss their meaning, the teacher shows them pictures of autumn scenes. Later the children draw their own pictures depicting an autumn scene. These children are using imagery strategies, and, as a result, they will most likely remember the concept of autumn, its attributes, and related generalizations about the season from the text.

Research has demonstrated that young children can use imagery strategies very successfully in their learning. Numerous studies have shown the effectiveness of teaching young children concepts through pictures and of generating visual images to accompany other verbal material to be learned. In using visuals, teachers facilitate the comprehension of information and recall of key ideas.

Other studies confirm that linking visual images to passages in texts aids recall and comprehension of the textual materials as well. This is

especially useful in teaching social studies, partly because instruction sometimes becomes dependent on presentations in texts and partly because social studies materials contain numerous abstractions that need to be made more concrete. Generating mental images helps to do this.

Different types of pictorials and mental images are effective. For very young children, photographs or other pictures appropriate to the information can be presented. Teacher-generated pictures or diagrams can also be used. Eventually, with appropriate instruction in the task, children can draw their own pictures or images to accompany the information. This is effective because it assures that the child is actively processing the information and is doing so in the context of his/her own experiences, associations, and stored memories. The resulting image is a very personal one. Finally, as children grow, they can expand simple personal images to more complex, appropriate visual images in their minds.

By teaching young children to use imagery techniques, teachers are not only helping them learn more effectively in the short run, but are also

helping them acquire a learning strategy that can aid them in independently directing their own learning in the future.

One picture is worth ten thousand words.

Chinese proverb

Verbal language alone is unsuitable as a means of stimulating the development of thinking in children.

W. O. Penrose

REFERENCES:

Forsyth, A. S., Jr. (1988). How We Learn Place Location: Bringing Theory and Practice Together. Social Education, 52, 500-503.

Forsyth explores reasons for and methods of teaching place location. The author argues for simulated travel experiences, a methodology especially appropriate for elementary students.

Higbee, K.L. (1979). Recent Research on Visual Mnemonics: Historical Roots and Educational Fruits. Review of Educational Research, 49, 611-629.

This review is based on more than one hundred studies on the use of visuals to aid in the recall of information. The author discusses the implication of visual imagery, how material can best be presented, and the kinds of strategies that can be taught to children to increase their learning.

Jantz, R. W. and Klawitter, K. (1985). Early Childhood/Elementary Social Studies: A Review of Recent Research. In Wm. B. Stanley, (Ed.), Review of Research in Social Studies Education: 1976-1983. Bulletin No. 75. Washington, D.C.: National Council for the Social Studies, 65-121.

Jantz and Klawitter's review discusses the implications of multiple studies of the effectiveness of imagery strategies in promoting the learning of young children. The authors note that young children utilize different learning modalities depending on the subject, and highlight the importance of spatial imagery. Lamenting the lack of study in this field, the authors suggest the necessity for additional study.



MAP SKILLS FOR EARLY LEARNING YEARS

FINDING:

Teachers who introduce map skills to young learners through a systematic, sequential program of instruction promote learning by providing students with important tools for recording, obtaining, and interpreting information about spatial relations.

RATIONALE:

By acquiring map skills, students gain access to specialized tools for recording, obtaining, and interpreting information about spatial relations, which are at the core of geographic understanding. Students find that mapping is a way of recording information about the environment, thus helping organize their experiences. Students find that from maps they can obtain a picture of the physical reality of a particular place at a given point in time. Also, students find that through thoughtful processing of the kinds of information obtained from maps they can generate new information.

Psychologists and educators continue to disagree over what, when, and how much children in the primary grades should learn about map skills. There is evidence, however, that these children can do substantially more than is currently expected of them. An extensive body of research has shown that primary grade children can perform at a level of operation for which they are usually not thought developmentally ready. This research shows that with systematic

instruction and carefully designed materials, children can construct maps, correctly interpret maps, and analyze and interpret relationships and patterns of human interaction depicted on maps. Thus, through map skills, children's intellectual horizons can be expanded, and their access to a storehouse of specialized information assured.

There is general consensus that young children — and students of other ages as well—should learn about maps initially by experiencing a site, then mapping the site. In this way maps are more readily understood as conceptions of reality. However, studies also show that young children can grasp some map skills, e.g., symbolization, through abstract instruction as well as through concrete experience. Excessive concern for concreteness in all instances may lead to inefficient instruction.

There is some evidence of a gender difference in ability that appears early and generally persists, with boys as a group having the advantage in

those skills requiring spatial interpretations. Whether this is genetic or an example of differentiated cultural expectations of boys and girls in our society is not known. What has been dem-

onstrated is that systematic instruction can benefit all young children and close the gap between boys and girls in their spatial relations development.

Journey over all the universe in a map.

Miguel de Cervantes

REFERENCES:

Cohen, H. G. (1986) First Lessons in Map Use: The Primary Grader. The Social Studies, 77, 162-164.

Cohen proposes that elementary school mapping activities establish a conceptual base for subsequent learning. The author stresses the verbalization of spatial relationships and the importance of children relating first to a familiar spatial environment.

Jantz, R.K. and Klawitter, K. (1985). Early Childhood/Elementary Social Studies: A Review of Recent Research. In W.B. Stanley, (Ed.), Review of Research in Social Studies Education: 1976-1983. Bulletin No. 75. Washington, D.C.: National Council for the Social Studies, 65-121.

Jantz and Klawitter present a recent review of research studies on the ways children gain information and acquire knowledge. The authors relate schema theory to information processing and concept formation, examining different modes of learning and the development of spatial abilities and map skills in young children. The authors include extensive, helpful references following the article.

Miller, J. W. (1985). Teaching Map Skills: Theory, Research, and Practice. Social Education, 49, 30-33.

Miller has written a current review of research studies on the development of spatial abilities and map skills, but it is less comprehensive than that of Jantz and Klawitter. Miller focuses more on practical guidance for classroom practice and comments on gender difference in spatial abilities.

Rice, M. J. and Cobb, R. L. (1978). What Can Children Learn in Geography? A Review of Research. Boulder, CO: Social Science Education Consortium. ED 166088.

Rice and Cobb have compiled an extensive review of research, considered one of the most thorough done in the last twenty years. The authors stress research indicating the potential of young children to perform well above currently expected levels.

❖ VOCABULARY DEVELOPMENT FOR MIDDLE LEARNING YEARS

FINDING:

Teachers who teach social studies vocabulary in the middle learning years through explicit instruction using a variety of methods promote learning because vocabulary instruction facilitates growth in reading comprehension.

RATIONALE:

The middle learning years are a transition period in students' development as readers. During these years, emphasis shifts from mastering basic reading skills to using reading to learn. The degree to which students make this transition successfully will partially determine their chances for success in high school, where achievement depends more on reading about unfamiliar topics. Social studies is one of the subject areas where reading facility is critical.

Vocabulary development is integral to gaining facility in reading to learn. It has been estimated that the average high school graduate acquires a working vocabulary of 80,000 words. Literary, abstract, and specialized words that fit a particular academic context are the most troublesome to readers. And indeed, studies show that poor readers in grades 4-7 have the greatest difficulty with abstract and content-specific words, those they will need most as they progress to the content-specific upper grades. The failure to acquire a working knowledge of these words cannot easily be corrected as reading tasks become more complex.

To emphasize vocabulary building, research confirms the practicality of direct vocabulary instruction. Studies have shown that students who were taught vocabulary demonstrated significant improvement in their comprehension of passages containing the taught words when compared to students who received no vocabulary instruction. Also, students who were taught vocabulary improved, to a lesser but still significant degree, their comprehension of passages not containing the taught words. This has led some researchers to speculate that the significance attached to vocabulary during instruction makes students conscious of other new words they encounter and motivates them to try to figure out the meanings.

Specifically, research advises teachers who wish to emphasize vocabulary development to:

- give direct instruction in vocabulary. Introduce new words before reading and develop an understanding of the meaning with students.

- help students generate their own definitions for words by using context clues, word attack skills, and other techniques. Beware of the dictionary assignment that has the students merely copy definitions of words. This misleads students because they frequently copy the first definition given, which is seldom the definition required by the subject context.
- have students use new words in sentences. Have them use each word several times. Practice and review vocabulary often.
- assign students readings from a variety of sources appropriate to the social studies field. Offer direct instruction in comprehending the readings.
- broaden student exposure to situations in which they will hear new social studies vocabulary in context. This can be accomplished through discussion, guest speakers, field trips, and readings.

A powerful agent is the right word.

Mark Twain

REFERENCES:

Chall, J. S. and Snow, C.E. (1988). Influences on Reading Development in Low Income Students. The Education Digest, 54, 53-56.

Chall and Snow stress the importance of vocabulary building in the middle years. The authors have studied the growth patterns of below-average and above-average readers, and the results of their study suggest that students begin to falter when materials require knowledge and recognition of specialized, abstract words. Thus teachers who stress vocabulary development during content-area instruction contribute to student success in reading.

Chamot, A.U. and O'Malley, J.M. (1987). The Cognitive Language Learning Approach: A Bridge to the Mainstream. TESOL Quarterly, 21, 227-248.

Chamot and O'Malley report on experience with CALLA, a curriculum correlated with mainstream content areas, academic language development activities, and learning strategy instruction designed to prepare students of English as a second language to function in mainstream classrooms. The authors offer excellent insights on developing reading comprehension and building vocabulary from this special perspective for success in content-centered classrooms.

Stahl, S. and Fairbanks, M. (1986). The Effects of Vocabulary Instruction: A Model-Based Meta-Analysis. Review of Educational Research, 56, 72-110.

Stahl and Fairbanks have developed a meta-analysis of studies concerned with the effects of vocabulary instruction on the learning of word meaning and on comprehension. The authors conclude that direct instruction in vocabulary is relevant to growth in reading comprehension.

HUMAN RELATIONS AND THE MIDDLE SCHOOL SOCIAL STUDIES CURRICULUM

FINDING:

Social studies teachers who emphasize “experience and knowledge of human relations” as the basis of middle school programming promote learning because this definition correlates with what is known about the physical, social, emotional, and intellectual development of emerging adolescents.

RATIONALE

A distinct lack of consensus exists regarding a definition for social studies. Those documents that do develop a definition tend to state what social studies *includes* rather than what it *is*. A definition for middle level educators must address pertinent features of middle school programs as well as the needs of students who attend those schools. It must also recognize that most youngsters’ first serious encounter with any formal social studies course of study occurs at the middle level. One definition seems most appropriate: “The social studies is an integration of experience and knowledge concerning human relations for the purpose of citizenship education.” The wide range of individual differences in physical development among middle school youth, the concern for peer group affiliation, the desire for direction and regulation, the need to question, the belief in the uniqueness of personal problems, the wide range of skills and abilities—all point to a need for developing curricula that require an examination of the human element in history.

Students should be encouraged to reach beyond superficial examinations of the famous in history—their birth dates, death dates, and accomplishments—to an analysis of physical characteristics, social interactions, motivations, problems, intellectual abilities, etc. Students should be given opportunities to examine the lives of ordinary individuals from a variety of ethnic and cultural backgrounds, as well as those who made outstanding contributions. Concepts such as conflict, competition, and peer group influence should be emphasized since these are closest in meaning to what is transpiring in student lives. In order to do this, teachers need to use a variety of source materials, including journals, diaries, biographies, and autobiographies so that students can begin to integrate the experience and knowledge of others with their own.

Any rationale for social studies at the middle school level must be similar to that for other subjects at the same level, and must be related to the preceding definition. The social studies

program must help students achieve the knowledge, skills, and attitudes that will help them *integrate experience and knowledge concerning human relations*. Goal statements for each area follow:

1. **Knowledge.** The emphasis on an interdisciplinary approach to learning should predominate. A focus on the human aspect of history should lead students to consider the literature, beliefs, traditions, morals and ethics of individuals and groups of people living in various times and places both in this nation and others, to examine the geographic implications (where? why? so what?) of human endeavors, and to analyze the challenges and issues of modern life and their relationship to the past. A broad scope of topics is essential in order to meet the wide and varying ability and interest levels of students at this level.

2. **Skills and Processes.** Lists of skills deemed important to an understanding of social studies can be found in a variety of sources. In addition, textbook publishers provide selective skills lists in their ancillary materials for teachers and "skill features" in textbooks themselves. In selecting, teaching, and reinforcing skills and processes at the middle level, teachers should keep in mind that students are often encountering formal social studies courses for the first time. This means

that many of them are being exposed to certain skills and processes for the first time as well, such as using specific social studies reference skills, interpreting and constructing time lines, interpreting primary source materials, understanding specialized vocabulary, etc. Teachers must introduce many skills at a "beginner's" stage, and provide numerous and varied opportunities for practice and success in acquiring each skill.

3. **Understandings and Attitudes.** Research has shown that values are being formed and solidified during early adolescence. By avoiding consideration of values in social studies, classroom teachers perpetuate the information-oriented, uninteresting textbook curricula of the past and fail to prepare students for their responsibilities as future citizens of the nation and world. Recalling the definition of social studies appropriate for middle level students, teachers must expose students to multiple perspectives and possible value conflicts that arise from human experience. This can be done through literature, film, community involvement, and open-ended discussions. It can also be done through emphasis on decision-making skills that require students to make daily decisions, both individually and communally, in a democratically structured social studies classroom.

There is research evidence that what could be is significantly different than what is.

James P. Shaver

REFERENCES

Allen, M.G. and McEwin, C.K. (1983). Middle Level Social Studies: From Theory to Practice. Columbus, OH: National Middle School Association.

The authors examine the relationship of early adolescents to social studies, explain the four traditions of social studies, and list selected resources for instruction. They conclude with a series of recommendations for middle level social studies programming.

Shaver, J. P. (1987). Implications From Research: What Should Be Taught In Social Studies. In Virginia Richardson-Kochler, et. al., (Eds.) Educator's Handbook: A Research Perspective, 112-138. New York: Longman, Inc.

The author examines the problems involved in defining social studies, and the relevancy of research evidence to social studies programming. Most cogent is his analysis of issues centrally important to classroom practitioners, and his conclusions regarding social studies in the future.

Toepfer, C.F., Jr. (1988). What To Know About Young Adolescents. Social Education, 52, 110-112.

The author provides a rationale for separate and distinct middle level social studies programming. He analyzes cognitive readiness issues, and suggests that most middle level students perform at concrete operational levels.

Wiles, J.W. and Bondi, J.W. (1986). Making Middle Schools Work. Alexandria, VA: ASCD.

The authors describe the designing of successful programs, examine specific aspects of staff development, and emphasize the importance of mechanisms for evaluation and feedback. The central thread throughout the book is the provision of a comprehensive and balanced middle school curriculum focused on the development of individuals rather than attainment of knowledge.



TEACHER ENTHUSIASM IN UPPER GRADES

FINDING:

Teachers who present lessons in a consistently enthusiastic manner promote learning because higher levels of teacher enthusiasm correlate positively with greater achievement among older students.

RATIONALE:

Whether in a personal conversation, a job interview, or a sales presentation, the enthusiastic presenter has an advantage over the prosaic performer. Not surprisingly, evaluators have repeatedly advised teachers to show enthusiasm for their subject, implying some positive effect on student performance. This conventional wisdom has been confirmed by studies indicating that ratings given to teachers whose behavior is described as enthusiastic are significantly related to student achievement. That is, higher levels of enthusiasm correlate positively with higher student achievement.

In these studies, teachers perceived as teaching enthusiastically are described variously as stimulating, energetic, mobile and animated, as well as straightforwardly enthusiastic. In some studies, teachers are perceived as enthusiastic because they appear interested in, excited by, and involved in the subject matter. Other studies merely suggest that specific physical behaviors such as movement, gesture, variation in voice, and eye contact are also related to student achievement. Experience readily connects such behaviors to an enthusiastic person.

Interestingly, studies suggest that teacher enthusiasm is less significant for young children than was once thought. It is hypothesized that an overtly enthusiastic manner may be distracting or overstimulating to very young learners. Also, it is thought possible that certain teaching procedures routinely used with young children are powerful enough treatments to act effectively independent of factors such as teacher enthusiasm. In any case, the effects of enthusiasm are now connected to the middle and high school years.

Beyond these general findings, researchers are reluctant to posit many claims about the effects of enthusiastic teaching. They admit they do not yet know why the positive correlation between teacher enthusiasm and student achievement exists. Is it because enthusiastic teachers better motivate and hold student attention? Is it because the behaviors of an enthusiastic teacher provide positive reinforcement for specific student responses? Is it because the enthusiastic teacher exhibits other behaviors positively correlated with student achievement? Is it because of other dynamics of the learning process not yet identified?

From studies on the effects of enthusiasm, it is clear that a majority of older students prefer teachers who display higher levels of enthusiasm. In a field of study that is consistently ranked low in student interest and preference,

this fact alone — quite apart from the correlation with higher achievement — should be enough to persuade teachers of social studies to incorporate more enthusiasm into their classroom manner.

Nothing great was ever achieved without enthusiasm.

Ralph Waldo Emerson

REFERENCES:

Bettencourt, E., Gillett, M., and Gall, M. (1983). Effects of Teacher Enthusiasm Training on Student On-task Behavior and Achievement. American Educational Research Journal, 20, 435-450.

Bettencourt et. al. assess the effects of enthusiasm training for teachers on student academic performance through two experiments. The authors dispute other studies, finding that students of teachers trained in enthusiasm did not achieve significantly more, but that those students were found to be more often "on-task."

Larkins, A.G. and McKinney, C.W. (1982). Two Studies of the Effects of Teacher Enthusiasm on the Social Studies Achievement of Seventh Grade Students. Theory and Research in Social Education, 10, 27-41.

Larkins and McKinney report four studies replicating earlier studies showing positive effects of teacher enthusiasm on middle-school students' achievement. The authors reveal that the results of one of these studies did not replicate previous findings and question the validity of the concept studied.

McKinney, C.W. and Larkins, A.G. (1982). Effects of High, Normal and Low Teacher Enthusiasm on Secondary School Social Studies Achievement. Social Education, 46, 290-292.

McKinney and Larkins have completed a study demonstrating the significant positive correlation of higher levels of teacher enthusiasm with greater student achievement in middle-school grades. Although they note that most students prefer higher levels of teacher enthusiasm, the authors admit they have been unable to establish clear patterns on the effects of enthusiasm and indicate the need for additional studies.

McKinney, C.W., Larkins, A.G., and Burts, D.C. (1984). Effects of Overt Teacher Enthusiasm on First-Grade Students: Acquisition of Three Concepts. Theory and Research in Social Education, 11, 15-24.

McKinney and Larkins conducted a study to test the hypothesis that overt teacher enthusiasm would improve learning of first grade students. The results of these studies showed no significant correlation.

DISCUSSION OF CONTROVERSIAL ISSUES AND MORAL DILEMMAS

FINDING:

Teachers who engage high school students in discussions of controversial issues and moral dilemmas promote learning because such discussions contribute to the development of positive political attitudes and higher-level moral thinking.

RATIONALE:

Research points to the years of adolescence as a time of dramatic growth and change in political thought. Several factors appear to influence this development. One is a change in the adolescent's quality of thinking, including marked development of the ability to perceive several points of view, to recognize cause and effect, and to utilize hypothetical reasoning. Another factor is the adolescent's ability and interest in wrestling intellectually with questions of right and wrong. Also, social maturation leads the adolescent to a greater sense of autonomy and a desire to take on adult roles; citizenship is one. This developmental portrait suggests that the role of the school at this time should be to help adolescents organize and make sense out of their political environment.

For the schools to perform this role successfully, two bodies of research suggest complementary practices. First is the political socialization research that has investigated the effects of schools on students' political attitudes. These studies have concluded that the formal school curricu-

lum (in this context, social studies courses) transmits political information successfully but appears to have little impact on shaping political attitudes. There is one variant to this conclusion, however. Some studies have demonstrated that when a teacher regularly incorporates free and open discussion of controversial issues in the course, then students' political attitudes are changed in positive ways. This research supports the long-held perception of many teachers that discussion of controversial issues should be an integral part of a comprehensive program in citizenship education.

Second is the body of research that investigated the development of students' moral reasoning, which is linked to the development of their political reasoning and to their understanding of law. This research sought to discover how best to advance students' moral thinking to the higher levels of principled reasoning. This is a task with import for social studies teachers in high schools because a grasp of principled reasoning is prerequisite to appreciating, understanding,

and applying the moral principles and values embedded in the American constitutional system of government. These studies have concluded that the level of students' moral reasoning can be raised incrementally by engaging students in direct discussion of moral dilemmas and that this can be done successfully by using both hypothetical and historical dilemmas in the context of content-oriented social studies courses. Albeit from a different perspective, this research also gives purpose to discussing a full range of controversial issues in a program of citizenship education and relates the practice to the cognitive and social growth of the adolescent student.

Research further cautions, however, that to achieve these goals, discussions of controversial issues, including moral dilemmas, must meet several conditions:

- discussion groups should be heterogeneous with a range of viewpoints represented and varying levels of sophistication in moral reasoning demonstrated.
- discussions should be open in the sense that the issue is truly open to divergent opinion, that the result is open-ended, that the floor is open to all participants, and that participants (the students *and* the teacher) are open-minded.
- discussions should be civil exchanges during which participants practice the constraints of civilized, yet spirited discourse.
- discussions should be true exchanges, with all participants communicating actively about the opinions expressed and especially the reasoning given to support them.

Managing such discussions is no easy task, especially for those teachers more experienced and perhaps more comfortable with didactic instruction.

... social education is moral education, and moral education is preparation for citizenship.

Lawrence Kohlberg

REFERENCES:

Dillon, J.T. (1984). Research on Questioning and Discussion. Educational Leadership, 42, 50-56.

Dillon summarizes the procedures for leading effective discussions, recognizing the paucity of research to offer secure guidelines. The author examines the distinctions between recitation and discussion and the concepts, character, and conduct of discussion.

Ehman, L.H. (1980). The American School in the Political Socialization Process. Review of Educational Research, 50, 99-119.

Ehman, L.H. (1980). Changes in High School Students' Political Attitudes as a Function of Social Studies Classroom Climate. American Educational Research Journal, 17, 253-265.

Ehman presents political socialization investigations from which he draws tentative support for incorporating controversial issues discussions in social studies classrooms. The author suggests that classroom climate functions as a key influence in attitudinal development.

Leming, J.S. (1985). Research on Social Studies Curriculum and Instruction: Interventions and Outcomes in the Socio-Moral Domain. In W.B. Stanley, (Ed.), Review of Research in Social Studies Education: 1976-1983. Bulletin No. 75. Washington, D.C.: National Council for the Social Studies, 123-213.

Leming has compiled a comprehensive evaluation of research on affective education in the social studies field. The author has written an extensive review of the curricular practices and outcomes used by social studies educators in the last two decades, providing both information about each curricular approach and specific data and/or citations regarding the evaluative research on the method.



COOPERATIVE LEARNING FOR ETHNIC OR MIXED ABILITY GROUPS

FINDING:

Teachers who teach social studies content through cooperative learning methods promote learning because such methods produce greater academic learning and better inter-group relationships among diverse ethnic and ability groups.

RATIONALE:

As the nation begins charting a course for the 21st century, we, the people, are a more diverse mix than ever before. Demographic trends assure more pronounced ethnic heterogeneity by the turn of the century. Public schools, especially in large urban areas, will increasingly become microcosms of this pluralistic society.

In response to the pluralism of the society, schools generally, and social studies programs particularly, need to promote a positive social climate. More broadly, they need to develop the attitudes of empathy, tolerance, and mutual respect that permit democratic communities to flourish and individuals of all backgrounds to develop fully. Toward these ends various strategies of schooling have been developed.

In extensive field studies, one teaching strategy consistently results in both achievement and attitudinal gains. This strategy is cooperative learning. In contrast to individual or competitive learning environments, a cooperative learning group is structured so that all members of the

group are dependent on each other to complete an assignment successfully. The result is a group product and the reward is shared by the group as a whole. Cooperative learning groups are structured in various ways; at least five major organizational models appear in the literature. What is common to all of these models is the experience of a cooperative, shared endeavor, and similar reported outcomes.

Studies of cooperative learning experiences shared by ethnically or otherwise mixed groups consistently indicate numerous positive cognitive and affective outcomes. These include enhanced academic learning, improved self-esteem, more frequent social interactions among majority/minority members outside of the learning group, enhanced feelings of trust and acceptance by peers and teachers, expression of more altruistic feelings, and increased acts of cooperative behavior in other settings. Interestingly, a cooperative learning experience correlates with another social experience in school that shows a similar positive social and attitudinal impact:

participation as a member of an integrated sports team.

Research has not yet determined the long term effects of cooperative learning. Nevertheless,

these methods appear to be important tools for the affective education needed to prepare students for today's schools as well as for America's communities and workplaces in the 21st century.

Cooperative learning is a promising new educational approach. The research on its success in changing student social attitudes and behaviors warrants serious consideration by the social studies profession.

J. S. Leming

REFERENCES:

Brandt, R. F., and Meek, A. (Eds.). (1989-90). Cooperative Learning. Educational Leadership, 47 (4).

Brandt and Meek have devoted an entire issue of the journal of the Association for Supervision and Curriculum Development to fourteen articles on cooperative learning. The editors include articles by theorists and practitioners; the guest editorial by Robert Slavin provides important commentary.

Leming, J.S. (1985). Research on Social Studies Curriculum and Instruction: Interventions and Outcomes in the Socio-Moral Domain. In W.B. Stanley, (Ed.), Review of Research in Social Studies Education: 1976-1983. Bulletin No. 75. Washington, D.C.: National Council for the Social Studies, 123-213.

Leming presents one of the most recent reviews of research on cooperative learning methods. The author concludes that empirical data reporting cognitive and affective gains for cooperative learning methods are among the strongest in the professional literature and interprets this research in the context of social studies education.

Sharan, S. (1980). Cooperative Learning in Small Groups: Recent Methods and Effects on Achievement, Attitudes and Ethnic Relations. Review of Educational Research, 50, 241-271.

Sharan has written a professional review of cooperative learning studies from the researcher's perspective. This review focuses on the impact of cooperative learning on three dependent variables: academic achievement, affective-social variables, and racial relations. Sharan's conclusions support Leming's review, cited above.

Slavin, R.E. (1981). Synthesis of Research on Cooperative Learning. Education Leadership, 38, 655-660.

Slavin's review of the research on cooperative learning was prepared especially for this education journal; hence the author states conclusions in a manner especially helpful to educators. The research consistently finds cognitive and affective gains in studies of this method.



SOCIAL STUDIES CONTENT IN ENGLISH AS A SECOND LANGUAGE CLASSROOMS

FINDING:

Teachers who teach foreign-born students English as a second language through incorporating social studies content into their program of language instruction promote learning because infusing content learning into the language instruction better prepares students to meet the academic language demands of the mainstream social studies classroom.

RATIONALE:

Students who are learning English as a second language often experience academic difficulty when they finally move into mainstream social studies classrooms where English is the sole language of instruction. By the time they make this move many of the students have become proficient in using English for conversation, but the demands of academic English are different. This is especially so in subjects like social studies where content is abstract, vocabulary is specialized and highly contextual, and both oral and written performance demands are complex. Students of English as a second language find the demands of academic English especially formidable when they enter high school. Research indicates the academic English proficiency of these students lags five to seven years behind their social communication language.

Experiential and empirical research has demonstrated that students of English as a second

language can be made more proficient content learners and can be better prepared to join mainstream social studies classes if their English language instruction is linked to the language requirements of the content courses. This calls for the teacher of English as a second language to incorporate into the curriculum several learning strands explicitly related to the social studies program of the corresponding grade level.

The first of these strands explicitly and pragmatically draws upon social studies concepts and topics as the functional basis for further English language instruction and practice. Students often find this age-appropriate social studies content interesting, personally satisfying, and motivating. Emphasis is placed on building a memory base of specialized, content-specific social studies words that could be the source of confusion when students transfer to mainstream social studies classes.

Another strand suggests that by providing specific instruction in the use of appropriate learning strategies, the teacher of English as a second language can lead students to improved performance in social studies.

A third strand, language experience, both oral and written, incorporates models of assignments characteristic of the social studies classroom. Students are given explicit instruction in study strategies relevant to accomplishing these tasks.

The learning experiences of students of English as a second language yield valuable insights for social studies teachers regarding the nature and processes of instruction in their own field. They also suggest the productivity of cooperation between social studies and language teachers. Just as students learn to read and read to learn, and learn to write and write to learn, so can students of English as a second language learn the language while also using the language to learn social studies content.

Outside the isolated language classroom students learn language and content at the same time. Therefore we need a broad perspective which integrates language and content learning.

B. A. Mohan

REFERENCES:

Chamot, A. (1983). Toward a Functional ESOL Curriculum in the Elementary School. TESOL Quarterly, 17, 459-471.

Chamot poses a rationale for a functional curriculum as opposed to a grammatical, structural one for English as a second language students. Models cited include European instructional situations.

Chamot, A. and O'Malley, J. (1987). Cognitive Academic Language Learning Language Approach: A Bridge to The Mainstream. TESOL Quarterly, 21, 227-248.

Chamot and O'Malley detail the research and theory and give a description of one integrated language learning and content program. The authors stress the desirability of integrating methodologies.

O'Malley, J. et al. (1985). Learning Strategy Applications with Students of English as a Second Language. TESOL Quarterly, 19, 557-584.

O'Malley et. al. report on a study that identifies appropriate learning strategies for students and demonstrates that explicit instruction in the use of the strategies significantly improves students' performance. The authors conclude that the teaching of learning strategies, coupled with the application of those strategies in a subject-area discipline, greatly enhances students' learning



PRE-READING STRATEGIES FOR LESS ABLE READERS

FINDING:

Teachers who prepare less able readers to read textbook assignments through the use of pre-reading strategies promote learning because pre-reading strategies establish a mind-set for reading and increase comprehension.

RATIONALE:

Surveys of teaching practices in social studies classrooms show the continuing dominance of the textbook as a source of student information. Yet it is textbooks that less able readers find especially difficult to use productively, partly because of their own poor reading habits and partly because of the design and style of textbooks themselves. A primary function of the social studies teacher should be to mediate this gap between text and student. Research demonstrates the effectiveness of instructional strategies in improving the reading performance of less able readers. Among the most productive are pre-reading strategies that help students create a mind-set for reading.

Research indicates that what students already know is a major determinant of what they will learn. Therefore, it is crucial to help students recall previously learned subject matter or general information from personal experience that relates to a new reading assignment and that contributes to understanding it. Studies show that poor readers do not make connections on their own. Engaging students in pre-reading discussion for this purpose is the opposite of the

common practice of giving students a reading assignment and discussing it afterwards.

Research on learning has also demonstrated that the more information is organized into meaningful parts and the more these parts are clearly perceived, the more easily the material can be learned. Hence, teachers need to provide students with aids that impose some kind of structure within which they can process the content of a reading selection. This could include objectives for reading, an overview, an advance organizer, or a set of questions. In this regard, it has been shown that identifying and teaching the meaning of key vocabulary words in the sequence used in the text can itself serve as an advance organizer. Such assistance has been found to be both necessary and effective with less able readers.

Reading studies show that less able readers do not use structural cues, often found in the texts themselves, effectively. Some cues typically appear in the layout of the book: chapter headings, section sub-headings, bold face type or italicized words, underlining, or graphic aids.

Other cues to the texts' structure are the typically recurring organizational patterns of expository prose: cause/effect, comparison/contrast, enumerative order, or time order. Effective readers have internalized habits of looking for these structural cues and using them to infer topic, main ideas (as opposed to supportive detail), and overall outline, as well as to judge how to accommodate reading rate or intensity to different subsections. Less able readers do not. Helping students make use of structural cues in the text to

plan for reading is another valuable pre-reading strategy.

Studies have shown that when less able readers are prepared for reading they can in fact learn from more complex reading materials than might be assumed. Because studies also show that students can learn strategies to guide their reading, demonstrating pre-reading strategies to less able readers may move them closer to becoming more effective and independent readers.

A major contribution to students' difficulty in understanding content texts was their teachers' failure to recognize the complexity and inherent flaws in those texts. As specialists familiar with the ideas presented, and capable themselves of inserting all the missing links, the teachers did not recognize either the complexity or the flaws until they were called to the teachers' attention. Further, the teachers rarely provided any pre-reading instruction for the students that could have facilitated the students' comprehension.

J. L. Vaughn, Jr.

REFERENCES:

Lunstrom, J. P. (1976). Reading in the Social Studies: A Preliminary Analysis of Recent Research. Social Education, 40, 10-18.

Lunstrom reviews studies in selected areas of concern. These areas include the nature of problems, readability, and considerations for curriculum and instruction in social studies. Noting social studies educators' general lack of knowledge regarding differing reading models, Lundstrom points to the critical need for teacher training.

Turner, T. N. (1970). Making the Social Studies Textbook a More Effective Tool for Less Able Readers. In W.E. Patton, (Ed.), Improving the Use of Social Studies Textbooks. Bulletin No. 63. Washington, D.C.: National Council for the Social Studies.

Turner summarizes the problems typical of less able readers and makes suggestions for dealing with these problems. The author emphasizes the less able reader's dependency on the teacher and the need for the teacher to structure the reading assignment to student needs. Careful assessment and planning can result in the use of textbooks in effective, varied ways. This is one of seven articles regarding the use of textbooks, published in a special bulletin focusing on this topic.

❖ ORAL HISTORY FOR ACADEMICALLY AT-RISK STUDENTS

FINDING:

Teachers who engage academically at-risk students in research through the use of oral history promote learning because oral history fosters the development of both affective and cognitive learning.

RATIONALE:

Since the 1960s professional historians have used oral history methods extensively to develop new areas of social history, especially family history, and the history of groups previously largely ignored in the historical record, such as women, cultural and ethnic minorities, the poor, dissidents, and laborers. For students who are themselves members of these very groups, teachers are finding that an oral history inquiry into one of these historical domains has appeal. An oral history task that begins with personal experiences has the potential of capturing students' attention and motivating them to persist, of causing them to look differently at the business of the classroom, and of having them make both affective and cognitive gains.

Oral history allows students to study history in ways that are new and different. It also has special significance for those who are culturally, ethnically, or otherwise disadvantaged. First, oral history broadens students' perceptions of what is worthy of historical inquiry and can legitimize a broad range of human experience that has heretofore been slighted in history books. Second, oral history alerts students to a wider

field of sources of knowledge besides books. In doing so, it moves learning outside the classroom, connecting it with the real life of the community, past and present. Third, oral history causes students to think about knowledge as dynamic, not static, open to new findings and interpretations. It also places them in a different relationship with knowledge. They are no longer passive recipients of somebody else's knowledge, but are empowered as creators of their own knowledge.

Increased awareness of one's cultural heritage is important to an improved self-concept, and oral history can contribute to this awareness. Through an oral history project about their cultural heritage, students can not only forge links to their personal past, but can also find patterns of change and development that link them to the broader society as well, thus enhancing their social comprehension. Because an oral history project is a cooperative project involving other participants, the students also forge links outside their own social circle into the community. Depending on the scope and extensiveness of the project, it may cause students to grow in empathy, respect,

or understanding of other persons or groups.

The Foxfire Project, in rural Appalachia, used oral history techniques to collect and preserve the literary and cultural heritage of the region. This and other projects less well known, demonstrated that oral history can significantly advance students' cognitive growth as well. These projects have shown the gains students make as they prepare for, plan, and carry out interviews; analyze, interpret, and evaluate the resultant data; corroborate and elaborate on the data through other sources; and prepare and present an oral and written report of the data.

For many students participation in these kinds of operations is more intense than in conventional assignments.

An oral history project should not be implemented casually. Teachers must be concerned with finding potential interviewees, training students to carry out the procedures, locating necessary material and equipment, and integrating the students' work into an overall course pattern. Nevertheless, the return, in terms of student learning, makes oral history an investment to be considered.

As John Dewey long ago argued, the best academic discipline for the child comes from one which taps first his actual experience and progresses into an examination of related examples from the past. Through such a process, learning a historical 'fact' or concept enabled students to use it functionally to find out other facts and meanings of a concept, or, more fundamentally, to learn something more about themselves or their society.

A. O. Kownslar

REFERENCES:

Cussler, E. (1987). Vietnam: An Oral History. English Journal, 76, 66-67.

Cussler's article emphasizes the positive effects of an oral history project in which students collected interviews with Vietnam veterans in their community. Primary research, editing, and revising were essential components of the product.

Fernekes, W. (1983). The Uses and Abuses of Oral History as Instructional Technique in Social Studies Education. Paper presented at the annual meeting of the American Educational Research Association, Montreal, Canada. ED 232944.

Fernekes presents an analysis of a questionnaire study done to discover how oral history techniques are being used in secondary-level ethnic studies courses. This paper contains an extensive review of the professional literature and summary of rationales and practices.

Lyons, N. (1988). Learning From New Research About Women. Education Week, 7, 194-202.

Lyons cites oral history projects as examples of pedagogy responding to the new scholarship about women that attends to women's ways of knowing. The author cites women's need for understanding others and for conflict resolution as significant factors affecting female decisions. Thus, oral history projects about women and their relationships offer opportunities to teachers to better understand the differing learning needs of students disadvantaged by race, gender, or class.

Shopes, L. (1980). Using Oral History For a Family History Project. Technical Leaflet 123. Nashville, Tennessee: American Association for State and Local History.

Shopes has written a manual to guide oral history projects. The focus is on methodology with emphasis on the importance of oral history in geneological study. The author presents helpful ideas for teachers.

❖ FACT QUESTIONS FOR RECALL AND PRACTICE FOR YOUNG AND/OR LESS ABLE STUDENTS

FINDING:

Teachers who lead students in recitation and drill through the use of fact questions promote learning because fact questions are appropriate for the practice necessary to master the specifics of new content and basic skills.

RATIONALE:

There are times in social studies classrooms when the task is to monitor the comprehension of new content and skills or to practice skills for mastery. Therefore, there are appropriate times for recitation and drill. Although fact questions are sometimes appropriate tools, research on learning is rather explicit about how teachers can best use these questions.

Learning studies say that effective recitation and drill using fact questions is characterized by teachers asking questions that students answer correctly as much as 75% of the time. To get these results, teachers have to ask questions that are clearly stated and easily understood. Effective recitation and drill may continue even beyond the point where it is clear that students know the material. Additional practice of material frequently leads to so-called overlearning, or a level of functional mastery.

One key purpose of recitation and drill using fact questions is to check on the accuracy of students' learning and to reinforce correct responses.

Research advises teachers to acknowledge correct responses so students know with certainty which is the correct response, to accept partial answers and follow up with rephrased or additional questions to elicit the correct response, and to correct an incorrect answer, but not to criticize the student who gave it. Finally, research advises teachers to review or reteach the material when patterns of incorrect responses show the necessity for doing so.

Learning research also suggests several additional reasons to explain why periods of recitation and drill utilizing fact questions facilitate learning. Students learn more when they attend to the learning task, and students' attention tends to be more focused during teacher-directed tasks. Students learn more when they rehearse or repeat new information, and the sooner the practice period follows initial learning, the more students will remember. Students learn more when they receive feedback on their performance, and they learn more when the feedback is given promptly. As revealed on tests, students

learn more when the questions from the practice period closely resemble the items on the subsequent test. Teachers who conduct a period of

recitation and drill utilizing fact questions must consider these conditions.

Rather than trying to deter teachers from using recitation . . . help them learn to use it well.

Meredith Gall

REFERENCES:

Brophy, J.E. and Good, T.L. (1986). Teacher Behavior and Student Achievement. In M. Wittrock, (Ed.). Handbook of Research in Teaching. New York: Macmillan Publishing Company, 328-375.

Brophy and Good summarize the effective teaching literature of the 1970s. The authors point out that these studies were conducted primarily in classes of elementary school children from low socio-economic backgrounds and must be interpreted with that setting in mind.

Gall, M. (1984). Synthesis of Research on Teachers' Questioning. Educational Leadership, 42, 40-46.

Gall reviews the current research on questioning and presents applications in classroom settings. The author examines the effects of higher cognitive level and fact questions and the student process of answering teacher questions.

Rosenshine, B. and Stevens, R. (1986). Teaching Functions. In M. Wittrock, (Ed.), Handbook on Research in Teaching. New York: Macmillan Publishing Company, 376-391.

The authors present a summary of teacher effectiveness studies with renewed emphasis on the direct instruction model. The authors recognize that conclusions based on these data are most applicable to those parts of an instructional program that are well-structured, and less applicable to those phases that are ill-structured.

❖ HIGHER-ORDER QUESTIONS/WAIT TIME

FINDING:

Teachers who challenge students' thinking by asking higher-order questions promote learning because higher-order questions require students to process information in ways associated with greater comprehension and understanding.

RATIONALE:

To help students learn complex content or apply, generalize from, or evaluate their learning, teachers need to ask higher-order questions. Studies show that teachers ask proportionately far fewer higher-order questions than other types of questions. This is especially true of social studies teachers.

Although studies link the asking of higher-order questions to greater levels of student comprehension and achievement, it is an oversimplification to say that higher-order questions are in and of themselves categorically better. Studies indicate the need for teachers to monitor and direct the course of student thinking generated by higher-order questions. Thorough and productive answers to higher-order questions may require the teacher to ask intervening sequences of more specific, factual questions to help students recall relevant data, recognize pertinent relationships, and make informed inferences — all a part of thinking through an answer to a higher-order question.

One of the most fruitful insights to come from the research on questioning is the concept of wait time. A series of related studies conducted over the last twenty years has shown that when

teachers wait three to five seconds after asking a question, and again after the response, the nature of the discourse in the classroom changes in a positive way. More students answer questions and they answer more accurately, with more elaborate, reasoned, and supported responses. In other words, the level of students' answers becomes cognitively higher. Students also become more attentive and listen more intently to each other's responses. Reciprocally, this improved feedback from students alters the teacher's questioning pattern. Teachers ask fewer questions, connect them better, and also raise the cognitive level related to the question. The application of the principle of wait time is especially significant, then, to the effective use of higher-order questions.

Strategies for higher-order questioning are suggested by experienced teachers and in the research. Expert teachers stress the need to carefully compose the higher-order questions that will be used to initiate a lesson, or a segment of a lesson, preferably by writing them down in advance so they can be edited for clarity. Expert teachers are aware that the questions they ask provide models for students of the kind of questions to ask about a certain body of information,

hence the need for higher-order questions to set the level of expectations for students' thinking. Expert teachers know they can help students improve their responses to higher-order questions by teaching them how to frame answers to recurring patterns of questions. Also, expert teachers know that asking higher-order ques-

tions effectively necessitates careful listening to student responses in order to build upon them. Finally, expert teachers are quick to encourage students to ask their own questions; for the goal of higher-order questioning is to move students to think and question independently.

Understanding is more stimulated than learned. It grows from questioning oneself or from being questioned by others, such as teachers.

TheodoreSizer

REFERENCES:

Adler, M. and Van Dorem, C. (1984). The Conduct of Seminars. In M.J. Adler, (Ed.) The Paideia Program: An Educational Syllabus. New York: Macmillan Publishing Company, 15-31.

Adler and Van Dorem discuss questioning from the perspective of expert teachers. The authors evidence a respect for classical ideas and suggest that different types of questions be framed for different subject matter.

Andre, T. (1979). Does Answering Higher-Level Questions While Reading Facilitate Productive Learning? Review of Educational Research, 49, 280-318.

Andre presents a status report about what is known regarding questions as instructional tools. One conclusion was related to the effectiveness of higher-order over factual questions to facilitate the learning of concepts and principles through reading text materials.

Dillon, J.T. (1984). Research on Questioning and Discussion. Educational Leadership, 42, 50-56.

Dillon presents a review of research on questioning behavior especially related to the use of higher-order questions. The author focuses on the concept, character, and conduct of discussion as a vehicle for instruction. He recommends teacher training and practice in discussion leadership.

Gall, M. (1984). Synthesis of Research on Teacher Questioning. Educational Leadership, 42, 40-46.

Gall writes a thorough review of research on questioning presented in a practical manner and directed toward classroom application. The author notes the effects of higher cognitive questions that engage students in independent thinking, and frames a five-step process for answering such questions. Because teacher questions do not necessarily elicit good student answers, students need to learn response requirements to improve their comprehension.

Redfield, D.L. and Rousseau, E.W. (1981). A Meta-analysis of Experimental Research on Teacher Questioning Behavior. Review of Educational Research, 51, 237-245.

Redfield and Rousseau provide an elaborate statistical treatment applied to the results of major studies on questioning effectiveness during almost two decades. The authors conclude that methodologies of earlier analysis had been inadequate to reveal relative effectiveness of higher-order questions on student achievement.

Rowe, M.B. (1986). Wait Time: Slowing Down May Be a Way of Speeding Up. Journal of Teacher Education, 37, 43-50.

Rowe presents a summary of studies on wait time. This investigator, who first hypothesized the concept twenty years ago, has written the premiere article on wait time. Rowe is convinced that wait-time, a seeming paradox, is an imperative strategy in effective teaching.



CONCEPT LEARNING THROUGH BEST EXAMPLES

FINDING:

Teachers who teach concepts through the use of “examples” promote learning because the use of best “examples” in concept development leads to better retention.

RATIONALE:

A concept is a set of specific objects, symbols, or events that share common characteristics, called critical attributes, which are referred to by a particular name or symbol. For example, a family (concept) is a group of people who normally live together in a household (the attributes). One theory contends that students learn a concept by forming a prototype in their memory. They focus on a best example of the concept provided by a teacher, a book, or other source, and then practice the classification of additional cases as either examples or non-examples of the concept. Classification is accomplished by using the prototype, a best example, as a referent. Experimental studies in concept learning support the efficacy of instructional models based on this theory.

A teaching strategy for concept learning based on the prototype theory would proceed in the following manner:

Begin by developing with the students a definition of the concept, stating it clearly in a manner appropriate to the learners. Review each of the attributes of the con-

cept provided in the definition to make sure students are familiar with these terms. (While presenting the definition, facilitates concept learning, it is not sufficient to provide a definition alone, for memorizing a definition can lead to mere verbalization of a series of words with no underlying grasp of meaning.)

Provide students with a best example of the concept in whatever format is useful and appropriate; e.g., a picture or a short prose passage. Try to present an example that is vivid, has imagery, and possibly calls up familiar associations. Orally elaborate on the way the example fits the concept and its attributes.

Next engage students in a period of practice during which they evaluate a series of additional cases. Using the best example as model, students must decide whether each new case is an example of the concept or not. Provide feedback so students will know whether they are discriminating accurately.

It appears that during the process of discriminating between examples and non-examples students elaborate and complete the conceptual knowledge that becomes embedded in their memory. The number of examples and non-examples that needs to be presented to complete this process varies according to the nature of the learners. Generally, the more practice students have, the better their answers will be. In this regard, it is appropriate to note that the important process of elaboration through multiple examples is exactly what is missing from most textbook

presentations of concepts. This is why students in social studies have a difficult time learning key concepts in a meaningful way from textbook sources alone.

Social studies instruction is replete with concepts, many of them abstract and hence difficult for the student to comprehend and for the teacher to teach. However, considering the key role concepts play as organizers of smaller pieces of information and as building blocks of generalizations, every effort made by both students and teachers in mastering them is worthwhile.

Concept teaching: . . . emphasizes the usefulness of learning through the formation of consistent, generalized symbolic ideas; . . .

C. V. Good

REFERENCES:

Martorella, P.H. (1982). Cognition Research: Some Implications for the Design of Social Studies Instructional Materials. Theory and Research in Social Education, 10, 1-16.

Martorella presents guidelines useful for concept development, especially regarding definitions and use of examples and non-examples. Martorella's work is based primarily on attribute theory, as opposed to prototype theory.

Park, O. (1984). Example Comparison Strategy Versus Attribute Identification Strategy in Concept Learning. American Educational Research Journal, 21, 145-162.

Park compares two concept teaching strategies to test their effectiveness. The author concludes that an example comparison strategy facilitates prototype formation in memory and results in a higher degree of student retention.

Tennyson, R. and Park, O. (1980). The Teaching of Concepts: A Review of Instructional Design Research Literature. Review of Educational Research, 50, 55-70.

Tennyson and Park have compiled a major study reviewing the research on conceptual development and instruction. The authors provide detailed recommendations for sequencing instruction to develop concepts. These include a four-step process for concept teaching that stresses definition, order, and the establishment of interrelationships among concepts.

Yoho, R.F. (1986). Effectiveness of Four Concept Teaching Strategies on Social Studies Concept Acquisition and Retention. Theory and Research in Social Education, 14, 211-223.

Yoho compares the effects of four concept teaching strategies designed to facilitate concept formation in the context of ninth-grade world history classes. The author found that the strategy that emphasized prototype formation by focusing on a best example, followed by contrasting it with additional examples, was most effective for both acquisition and retention.

WRITING

FINDING:

Teachers of social studies who incorporate writing into their program of instruction promote learning because writing develops higher-order thinking and promotes better understanding of content.

RATIONALE:

A priority common to all the educational reform movements of the 1980s was the necessity for students to learn how to write effectively. Consequently, all curricular areas, including social studies, have been enlisted in the task of helping students acquire facility in writing. The perception that writing is important across the curriculum is now quite commonplace.

Concurrently, a complementary perception of writing across the curriculum has taken hold. Succinctly stated, this view says students should write to learn. Advocates contend that writing assignments utilized in subject area instruction lead to improved student thinking and enhance the learning of content.

Does research bear this out? Professor Herbert Applebee of Stanford University gives a qualified endorsement based on his analysis of the extensive number of studies on reasoning and writing that have been conducted during the last two decades. Applebee concludes that the research is consistent with the notion that writing activities contribute to the development of higher-order thinking and lead to better understanding, even though the research does not yet give definite assurance that this is so. Social studies edu-

cators have produced a body of experientially based literature justifying and applying writing as an instructional tool in teaching social studies.

This rationale posits at least three important benefits for students. The first is that writing stimulates higher-order thinking as students necessarily assemble, evaluate, select or discard, organize, and relate facts, concepts, and generalizations in the act of composing. Such manipulation of data is at the heart of learning. A second benefit is that out of this manipulation of data comes a realization of new relationships and new insights, hence the generation of students' new knowledge. Finally, a third benefit is that students must grapple with the effects of point of view—the writer's and the reader's—and in so doing come to better appreciate the role of perspective in creating and interpreting.

Most of what students now write in social studies classrooms is for the purpose of evaluation. They compose products to demonstrate to the teacher what they have already "learned." Both research and practice now suggest that carefully designed writing tasks can in fact generate learning itself. Successful teachers have students write for both reasons.

By using writing as a learning tool, we can use writing to help students learn the content and thinking skills necessary for the reasoning and learning tasks required in social studies.

Henry Giroux

REFERENCES:

Applebee, A.N. (1984). Writing and Reasoning. Review of Educational Research, 54, 577-596.

Applebee's review of the research gives the importance of teaching writing a qualified endorsement. The reviewer is a leading figure in the "writing across the curriculum" movement, and his references following the article are extensive.

Beyer, B. and Brostoff, A. (1979). Writing to Learn in Social Studies. Social Education, 43, 176-177.

Beyer and Brostoff present the rationale for social studies teachers who wish to act on the research endorsement and use writing as a learning tool in their classrooms. Noting that writing can be a difficult challenge for both students and teachers, the authors stress that writing and content are inseparable. Through the practice of writing, teachers can thus facilitate mastery of content and the development of thinking skills.

Hedberg, J. (1988). Writing and Thinking About the English Industrial Revolution. Social Education, 52, 260-263.

Hedberg summarizes the rationale for teaching writing in social studies classes and gives a detailed two-day lesson plan to illustrate the application of the rationale to specific content. After reading about English factory conditions in the early Industrial Revolution, students analyze Elizabeth Barret Browning's poem "The Cry of the Children," and from information derived therein, students write responses to parliamentary questions about working conditions. Thus, the author illustrates that writing can be a teaching tool, an integrative force, and an involving technique for learning.

Jolliffe D.A. (1987). A Social Educator's Guide to Teaching Writing. Theory and Research in Social Education, 15, 89-104.

Jolliffe summarizes a rationale for having students write to learn in social studies classes and offers four categories of writing assignments that apply the rationale. The author notes the value of integrating social studies content with writing practice as students develop life skills.

❖ MODELING CRITICAL THINKING

FINDING:

Teachers who teach critical thinking through modeling critical thinking behavior in the context of their regular program of social studies instruction promote learning because students can be expected to learn by modeling the behavior of others and because critical thinking is appropriately modeled in the context of specific content.

RATIONALE:

Although educators regard critical thinking as an important social studies objective, observations of instruction too often reveal that this is a commitment in principle unsupported by translation into classroom practice. The gap between intent and practice may be due in part to confusion over what critical thinking is and how it is developed. Recent research offers some challenging insights into both questions.

Current views hold that critical thinking follows from a mind-set that is not inclined to take things for granted. It is a disposition of cautious skepticism that leads to raising appropriate and informed questions about ideas and circumstances. To paraphrase Catherine Cornbleth, the critical thinker engages in a dynamic process of raising and pursuing questions about his own and others' claims and conclusions, definitions and evidence, beliefs and reactions. Such critical or, as some prefer, reflective thinking about experience is integral to knowing.

Given this definition of critical thinking, researchers presently admit to raising more ques-

tions than to providing answers about teaching for critical thinking. One thing their knowledge does, however, is to reaffirm the role of the classroom teacher as a model of critical thinking. Teachers can value, encourage, and support critical thinking as they make the myriad instructional decisions that guide specific students in specific classrooms. In doing so they can believe they are helping students acquire the knowledge and skills on which research says critical thinking depends; for, research also says that a wide range of behaviors are learned by observing and modeling the behavior of others.

Research indicates that critical thinking and its associated skills are most effectively taught within the context of a subject area. Several ideas are important to consider in this regard. For one, critical thinking is dependent on a sufficient knowledge base. It is impossible to think critically about something about which one knows nothing. For another, what constitutes critical thinking varies with the contexts provided by each form of knowledge and its disciplines. For example, the questions that are

meaningful to ask and the proofs of a valid answer are different in mathematics than in art, in psychology than in law, and in natural science than in religion. Thus, one way in which teachers can model critical thinking is to demonstrate to students how to think in the particular discipline the teacher is teaching.

Research also indicates that critical thinking and its associated reasoning skills are not likely to occur extemporaneously, no matter what the discipline context happens to be. On the con-

trary, teachers must take a directive role in initiating and guiding critical thinking. Teachers can model critical thinking, then, by deliberately raising questions, drawing inferences, making observations, noting contradictions, proposing alternatives, and validating claims — and by prodding students to do likewise. Teachers can further model critical thinking by demonstrating the steps in their thinking as they engage in the above processes in response to specific contexts — and by prodding students to be explicit and to reflect upon their individual thinking patterns.

Some of the popular critics of education have been correct: critical thinking can improve education. What has not been sufficiently recognized, however, is that education absolutely requires it.

J. E. McPeck

REFERENCES:

Chambers, J.H. (1988). Teaching Thinking Throughout the Curriculum — Where Else? Educational Leadership, 45, 4-6.

Chambers argues the philosophical case for teaching thinking in the context of disciplines. The author argues that teachers who are knowledgeable in their subject areas, who understand how their discipline differed from other disciplines, and who convey this information to their students, teach thinking skills. The author argues further for the integration of thinking skills appropriate to a particular discipline.

Cornbleth, C. (1985). Critical Thinking and Cognitive Process. In W.B. Stanley, (Ed.), Review of Research in Social Studies Education: 1976-1983. Bulletin No. 75. Washington, D.C.: National Council for the Social Studies, 11-63.

Cornbleth presents a comprehensive essay summarizing current research and conceptual thinking about critical thinking. Arguing that critical thinking cannot be directly taught, the author states that teachers must provide the opportunity and support for this instruction, and that the social studies provide an invaluable vehicle for this initiative. Cornbleth draws heavily on research from the Pittsburgh Critical Thinking Project with which she has been associated since 1983.

McPeck, J.E. (1981). Critical Thinking and Education. New York: St. Martin's Press.

McPeck presents a detailed analysis of what critical thinking is and is not, and its implications for education. The author views problem-solving as an aspect of critical thinking and gives attention to the relationship between knowledge and skill development therein.



GRAPHIC REPRESENTATIONS

FINDING:

Teachers who teach students to structure and process information through the use of graphic representation strategies promote learning because graphic representation of material facilitates comprehension and recall.

RATIONALE:

Graphic representation strategies are learning aids that symbolically create a picture of the structure and relationships of material, most frequently material found in textual form. The form of the graphics themselves mimics psychologists' theoretical view of how information units and structures of units are embedded in memory. Studies suggest that producing graphic representations effectively increases learners' comprehension and recall.

In the literature on learning, three major graphic representation strategies are found. First, a network strategy requires students to depict the relationships among the concepts or ideas in a passage of text in the form of a diagram using nodes for concepts and links for relationships. Second, a mapping strategy requires students to use a set of predetermined symbols to represent how ideas in a textual passage are related. The symbols may indicate that one item is an example of another, is caused by another, occurred before another, and so on. Third, a concept mapping strategy requires students to identify elements of the content in a passage, then note them in order from general to detailed, moving from top to bottom of a page. Then all items are linked by lines marked to indicate the type of relationship connecting the items. It is important to note that in all instances students must be taught to use the strategy.

The effectiveness of graphic representation strategies in aiding recall and comprehension rests on several axioms from research and theory. First, studies consistently show that the more actively students process or interact with material to be learned, the greater the learning. Second, studies consistently show that the more organized the material, and the more clearly its organization is perceived by the learner, the greater the learning. Third, studies suggest that under some circumstances visual displays or diagrams accompanying prose presentations facilitate learning. The use of graphic representation strategies by students appears to establish all of these conditions associated with improved comprehension and recall.

Graphic representation strategies have been used in classroom settings from elementary schools to colleges. They are used as advance organizers and summarizing devices. They are used by students as study aids and by teachers as evaluation tools to check students' learning. In summary, the technique of graphic representation is proving a versatile as well as effective aid to student thinking. In social studies classrooms, where content is complex and dependence on text presentations is high, graphic representation strategies can have a positive impact.

... the network diagram provides a visual, spatial organization of the information and helps the student see an overall picture of the material.

J. VanPatten, Chao Chun-I, and C. Reigeluth

REFERENCES:

Armbruster, B. and Anderson, T. (1980). The Effect of Mapping on the Free Recall of Expository Text. Technical Report No. 160. Center for the Study of Reading. Urbana, IL.: University of Illinois. ED 182735.

Armbruster and Anderson test the effectiveness of mapping for middle school students who were taught to map short prose passages. The test results show the promise of this technique in facilitating learners' recall.

Dansereau, D.F. (1979). Development and Evaluation of a Learning Strategy Training Program. Journal of Educational Psychology, 71, 64-73.

Dansereau reports on an interactive learning strategy system including a networking strategy for graphically depicting the organization of text passages. The author's data show the effectiveness of the strategy.

VanPatten, J., Chao, C., and Reigeluth, C. (1986). A Review of Strategies for Sequencing and Synthesizing Instruction. Review of Educational Research, 56, 437-471.

Van Patten et. al. present a current report and assessment of the research on the relationship between sequencing and synthesis. The authors also cite the importance of model building and theory construction.